ARMY TM 9-1005-313-10
MARINE CORPS TM 08670A-10/1A
SUPERSEDES COPY DATED 21 JULY 1988

OPERATOR'S MANUAL FOR
MACHINE GUN, 7.62MM, M240 (1005-01-025-8095)
M240B (1005-01-412-3129)
M240C (1005-01-085-4758)
M240E1 (1005-01-252-4288)
M240G (1005-01-359-2714)

HEADQUARTERS, DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. MARINE CORPS

JULY 1996

WARNING

Observe all the warnings in this manual. They can save your life.

Be sure to clear weapon before disassembling, cleaning, inspecting, transporting, or storing.

Make sure the barrel is locked tightly before firing.

Ensure that assigned/spare barrels have been headspaced and tagged to your receiver. Rotate usage of the barrels.

Do not interchange barrel assembly or bolt assembly from one machine gun to another. Doing so may result in injury to, or death of, personnel.

Never reload a runaway machine gun until it is repaired. Be sure machine gun is cleared before removing it from vehicle/tripod mount.

A hot barrel can burn you. If the barrel is hot, use your heat resistant mittens.

Stay clear of muzzle. Do not allow round to hit any hard surface or it may fire. Dispose of live round in accordance with local regulations.

Using gasoline, kerosene, hydraulic oil, benzene, bensol, high pressure water, steam, or air for cleaning is prohibited.

If nothing is ejected and you have a hot gun (200 rounds fired within a 2 minute period), do not open the cover. Place safety to "S". Keep machine gun pointed down range, and remain away from machine gun for 15 minutes. After 15 minutes, clear your machine gun.

If runaway occurs, always keep machine gun pointed down range.

Use care when removing excess carbon, carbon may chip off and fly into eyes.

Before firing, make sure the barrel is locked tightly in the receiver. If the barrel is not locked, threads in receiver could be damaged or cause personal injury.

This is the only ammunition authorized for use in your machine gun. If it is not shown, it is not authorized.

Ammunition which fails to fire will be disposed of by authorized procedures.

Always keep machine gun pointed down range.

Dry cleaning solvent is FLAMMABLE and TOXIC and must be kept away from open flames and used in a well ventilated area. Use of rubber gloves is necessary to protect the skin when washing machine gun parts.

Appropriate eye protection is recommended when cleaning your weapon and/or its parts.

First aid

For further information on first aid, see FM 21-11.

ARMY TM 9-1005-313-10
MARINE CORPS TM 08670A-10/1A

HEADQUARTERS
DEPARTMENT OF THE ARMY
U.S. MARINE CORPS
Washington D.C., 19 July 1996

TECHNICAL MANUAL
* ARMY NO. 9-1005-313-10
* MARINE CORPS NO. 08670A-10/1A

Operator's Manual
MACHINE GUN, 7.62MM, M240 (1005-01-025-8095)
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MACHINE GUN, 7.62MM, M240G (1005-01-359-2714)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of any way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Director, U.S. Armament and Chemical Acquisition and Logistics Activity, ATTN: AMSTA-AC-NML, Rock Island, IL 62199-7630.

Marine Corps users submit NAVMC Form 10772 direct to: Commanding General, Marine Corps Logistics Base (Code 850), Albany, GA 31704-5000.

A reply will be furnished to you.

* This manual supersedes TM 9-1005-313-10, dated 21 July 1988 and Marine Corps TM 08670B-10/1A, Supplement-1, dated 29 July 1994.

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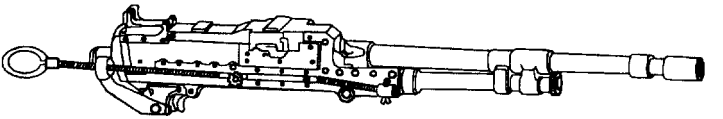
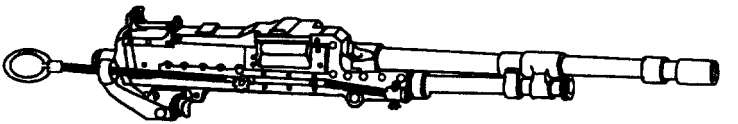


M240



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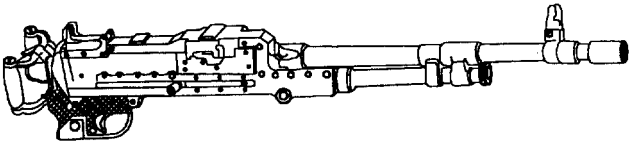

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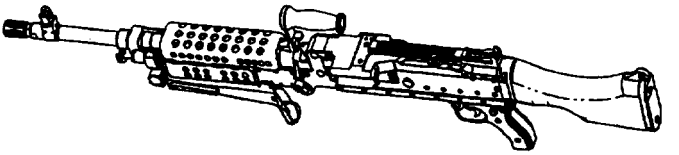

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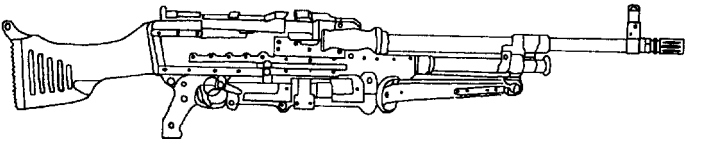


M240G

CHAPTER 1
INTRODUCTION

Section I. GENERAL INFORMATION

SCOPE.
Type of Manual: Operator's Manual.

Model Number and Equipment Name: M240, 7.62mm, Machine Gun, M240B, 7.62mm, Machine Gun, M240C, 7.62mm, Machine Gun, M240E1, 7.62mm, Machine Gun, M240G, 7.62mm, Machine Gun.

Purpose of Equipment: Designed as coaxial machine gun for tanks and 7.62mm fire power on light armored vehicles (M240/M240C). Designed as a tripod mounted or bipod supported machine gun for use by ground forces. The bipod is integrated into the receiver assembly of the weapon (M240B/M240G). Designed with front and rear sights, uses 7.62mm ammunition, and spade grip trigger device is pintle mounted on light armored vehicles (M240E1).

MAINTENANCE FORM AND RECORDS. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA PAM 738-750, The Army Maintenance Management System (TAMMS).

Marine Corps users will refer to TM 4700.15/1.

REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR). If your machine gun needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance.

Army users submit an SF 368 (Quality Deficiency Report) and mail it to: Commander, US Army Armament Research Development and Engineering Center, ATTN: AMSTA-AR-QAW-A, Rock Island, IL 61299-7300.

Marine Corps users submit QDR's or SF 368 in accordance with MCO 4855.10 to: Commanding General, Marine Corps Logistics Base (Code 808), Albany, GA 31704-5000.

We'll send you a reply.

NOMENCLATURE CROSS REFERENCE LIST.

Common Name	*Official Nomenclature*
Breech Body Assembly	Breech Body Assembly Bolt
Buffer and Spade Grip Assembly	Buffer Grip Assembly

CORROSION PREVENTION AND CONTROL (CPC).

Corrosion Prevention and Control (CPC) of Army materiel is a continuing concern. It is important that any corrosion problems with this item be reported so that the problem can be corrected and improvements can be made to prevent the problem in the future items.

While corrosion is typically associated with rusting of metals, it can also include deterioration of other materials such as rubber and plastic. Unusual cracking, softening, swelling, or breaking of these materials may be a corrosion problem.

CORROSION PREVENTION AND CONTROL (CPC) (Cont).
If a corrosion problem is identified, it can be reported using SF 368. Use of key words such as "corrosion", "rust", "deterioration" or "cracking" will assure that the information is identified as a CPC problem.

The form should be submitted to: Commander, US Army Armament Research Development and Engineering Center, ATTN: AMSTA-AR-QAW/Customer Feedback Center, Rock Island, IL 61299-7300.

Section II. EQUIPMENT DESCRIPTION

EQUIPMENT CHARACTERISTICS, CAPABILITIES, AND FEATURES.
Purpose. Designed as coaxial machine gun for tanks and 7.62mm fire power on light armored vehicles (M240/M240C/M240E1). Designed as a tripod mounted or bipod supported machine gun for use by ground forces. The bipod is integrated into the receiver assembly of the weapon (M240B/M240G).

Capabilities and Features. The machine gun is gas-operated, mounted on a coaxial mount, and fires from open bolt position. 7.62mm is the authorized round for the machine gun. The M240E1 machine gun has a spade grip and is pintle mounted. The M240B machine gun has a buttstock and can be ground mounted on the M122A1 Tripod Mount (Refer to TM 9-1005-245-13&P) or integral bipod. The M240G machine gun has a buttstock and can be ground mounted on the M122 tripod with flex mount (Marine Corp only).

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS.

Barrel assembly (A). Houses cartridge for firing and directs projectile.

Buffer assembly/Buffer and spade grip assembly/Buttstock and buffer assembly (B). Absorbs recoil for bolt and operating rod assembly at the end of recoil movement.

Driving spring rod assembly. (C). Provides energy for returning bolt and operating rod assembly to firing position.

LOCATION AND DESCRIPTION OF MAJOR COMPONENTS (Cont).

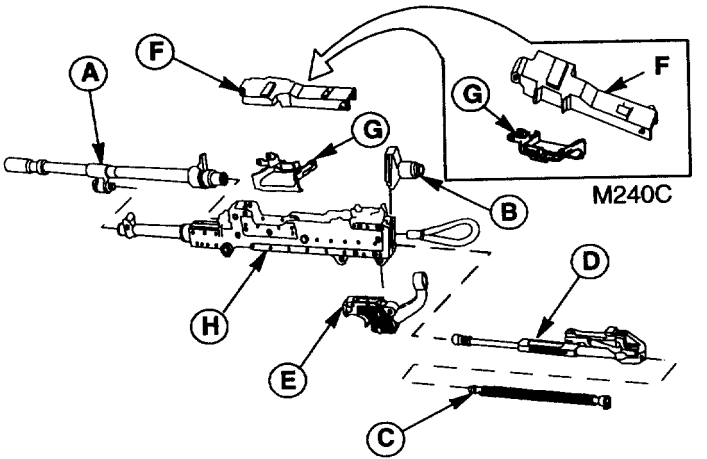
Bolt and operating rod assembly. (D). Provides feeding, stripping, chambering, firing, extraction, and ejection of cartridges using the projectile propelling gases for power.

Trigger housing assembly (E). Controls the firing of the machine gun.

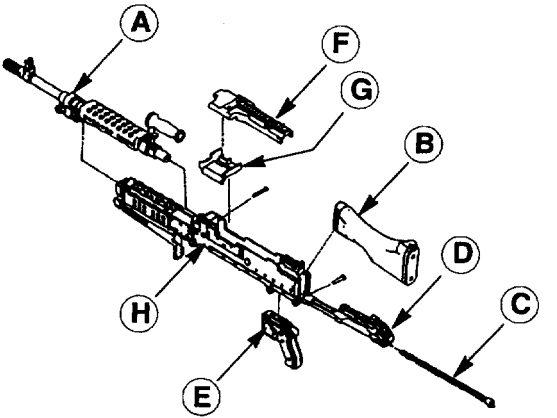
Cover assembly (F). Feeds linked belt, positions and holds cartridges in position for stripping, feeding, and chambering. Cover has integral sight mounting rail for current/future accessories (M240B only).

Feed tray (G). Serves as a guide for positioning cartridges to assist in chambering.

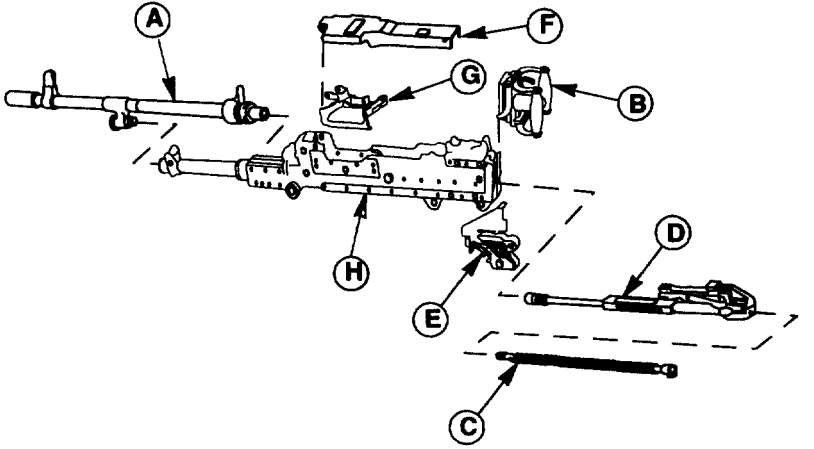
Receiver assembly (H). Serves as a support for all major components. Houses action of weapon and, through a series of cam ways, controls functioning of weapon.



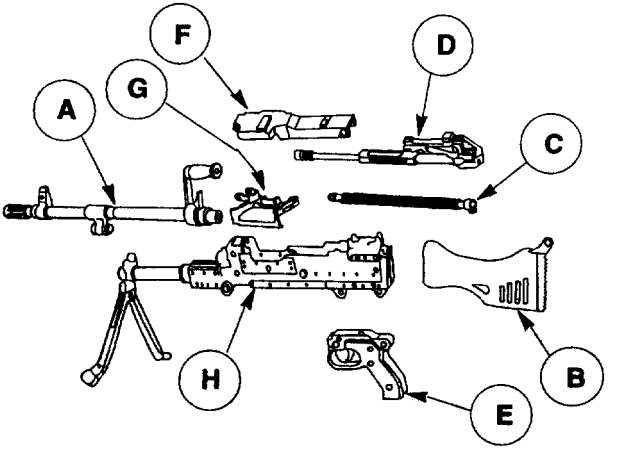
M240



M240B



M240E1



M240G

(A) BARREL ASSEMBLY

(B) BUFFER ASSEMBLY M240/M240C
BUTTSTOCK AND BUFFER ASSEMBLY M240B
BUFFER AND SPADE GRIP ASSEMBLY M240E1

(C) DRIVING SPRING ROD ASSEMBLY

(D) BOLT AND OPERATING ROD ASSEMBLY

(E) TRIGGER HOUSING ASSEMBLY

(F) COVER ASSEMBLY

(G) FEED TRAY

(H) RECEIVER ASSEMBLY

DIFFERENCES BETWEEN MODELS.

	M240	M240B	M240C	M240E1	M240G
Feeds from the right			X		
Feeds from the left	X	X		X	X
Cover assembly (11826165)	X			X	X
Cover assembly (11826038)			X		
Cover assembly (12977101)		X			
Receiver assembly (11826192)	X		X		
Receiver assembly (12597044)				X	X
Receiver Assembly (12976834)		X			

DIFFERENCES BETWEEN MODELS (Cont).

	M240	M240B	M240C	M240E1	M240G
Barrel assembly (11825985)	X		X		
Barrel assembly (12597035)				X	
Barrel assembly (12976817)		X			
Barrel Assembly (12976818)					X
Trigger assembly (11826230)	X		X		
Trigger assembly (12597070)				X	
Trigger assembly (12976869)		X			X

DIFFERENCES BETWEEN MODELS (Cont).

	M240	M240B	M240C	M240E1	M240G
Buffer assembly (11826211)	X		X		
Buffer and spade grip assembly (12597057)				X	
Buttstock and buffer assembly (12976851)		X			X
Charger cable (11826145)	X		X		

DIFFERENCES BETWEEN MODELS (Cont).

	M240	M240B	M240C	M240E1	M240G
Cocking handle assembly (12597045)				X	X
Cocking handle assembly (12976835)		X			

Procedures are written for the M240 machine gun but apply to all five models except where noted.

Do not mix and match parts listed for one model configuration on a different model.

EQUIPMENT DATA.

Weight	10.3 Kg (22.2lb) 12.52Kg (27.6lbs) (M240B only) 11.00Kg (24.2lbs) (M240G only)
Rate of fire:	You get the sustained and rapid rates through practice.
Cyclic	650 to 950 RDS/M - Weapon not intended to fire at 950 RDS/M. This will cause accelerated wear/damage to the barrel and rest of weapon.
Sustained	100 RDS/M (4-5 sec between bursts) - Change barrel every 10 minutes.
Rapid	200 RDS/M (2-3 sec between bursts) - Change barrel every 2 minutes.

EQUIPMENT DATA (Cont).

Range:

Maximum	3,725 meters
Maximum effective (point)	800 meters with M122A1 Tripod (M240B) (M122 Tripod with Flex Mount Assembly(M240G) (Marine Corp only)).
Maximum effective (area)	1,800 meters with M122A1 Tripod (M240B) (M122 Tripod with Flex Mount Assembly (M240G) (Marine Corp only)).
Tracer burnout	Approximately 900 meters.

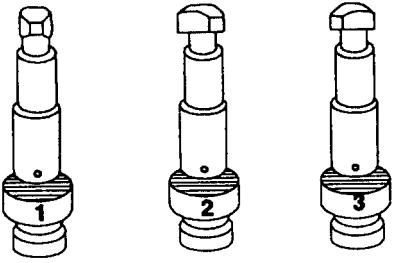
Section III. TECHNICAL PRINCIPLES OF OPERATION

FACTS ABOUT YOUR MACHINE GUN. The barrel is air-cooled and has an established headspace allowing quick changes for cooling and maintenance when required. The rate of fire is controlled by 3 regulator settings (setting #1 preferred). Settings #2 and #3 are used when carbon buildup, cold weather, and dusty conditions reduce the firing rate. Bolt design permits the cover to be opened or closed, regardless of the bolt position, without damage.

NOTE

This design is intended to maintain a consistent rate of fire under adverse conditions and is not to increase the rate of fire. Gas inlet setting number 1 is the preferred setting for normal operating conditions. If gas regulator plug has been set to setting 2 or 3 to increase firing rate, take corrective action to return to primary setting as soon as possible.

Gas regulator may need to be changed to setting #2 or #3 (Army only) for firing blank ammunition. After cleaning, return to setting #1 for firing of standard ammunition.



Setting # 1 = 650 rds/m approx.
Setting # 2 = 750 rds/m approx.
Setting # 3 = 950 rds/m approx.

REGULATOR SETTINGS

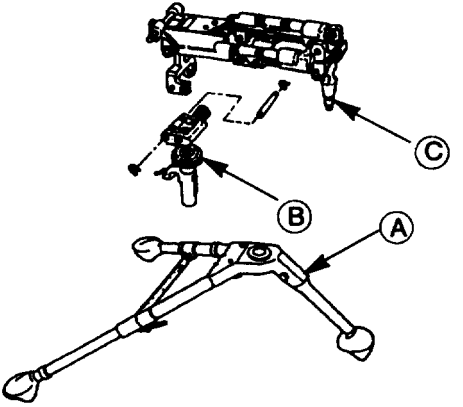
ASSOCIATED EQUIPMENT

(A) **Tripod Assembly.**

(B) **Traversing and Elevating (T&E) Mechanism.**

(C) **Mount Assembly, Flexible.** Houses T&E adapter bracket and pintle pin. Absorbs recoil of weapon, improving accuracy.

Components A, B, and C comprise the M122A1 Tripod Mount.



M122A1 Mount, Tripod

Section IV. INSTALLATION OF EQUIPMENT

MOUNTING OF T&E MECHANISM AND FLEX MOUNT ASSEMBLY TO THE TRIPOD.

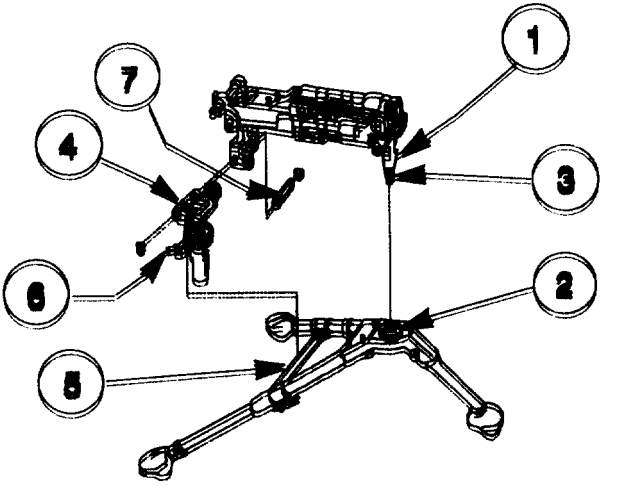
1 Place the pintle (1) of the flex mount assembly into the sleeve bushing (2) on the tripod mount.

2 Release the pintle lock (3) to secure flex mount assembly to the tripod mount.

3 Place the T&E mechanism (4) onto the traverse bar (5) of the tripod mount.

4 Lock the T&E mechanism (4) into place by turning the traversing lever (6) clockwise.

5 Align holes in flex mount T&E cradle bracket with holes in T&E. Insert pin (7) through the cradle bracket and T&E, secure with "C" clamps.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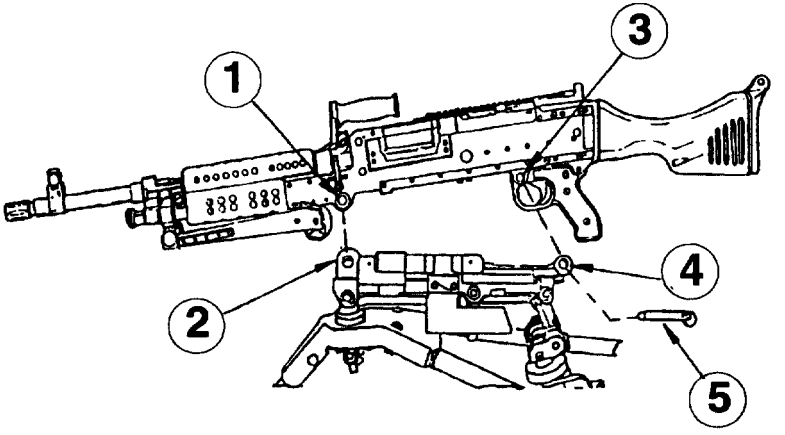
MOUNTING THE WEAPON TO THE FLEX MOUNT ASSEMBLY (M240B/M240G).

1 Position the weapon over the flex mount and tripod mount.

2 Tilt the muzzle down and insert the receiver bushings (1) into the front cradle slot (2) of the flex mount. Pull the weapon to the rear to fully seat the receiver bushings in the cradle.

3 Lower the rear of the weapon onto the flex mount. Align the mounting hole (3) in the trigger housing with the mounting hole (4) in the flex mount.

4 Insert spring pin (5) through the hole in the flex mount and receiver assembly. Ensure weapon is securely attached to the flex mount.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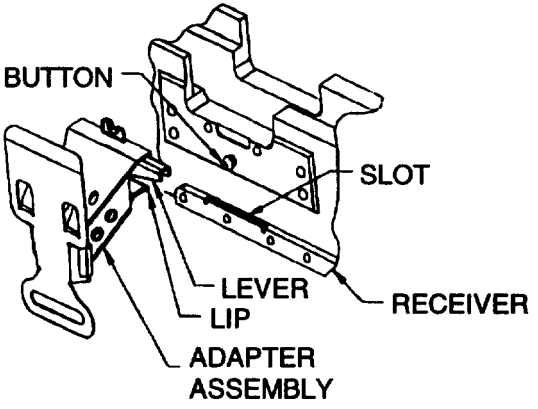
ATTACHING THE ADAPTER ASSEMBLY (M240B).

1. Open cover.
2. Raise feed tray.
3. Insert curved lip of the adapter assembly into slot located in the rail on the side of receiver, below feed tray.
4. Depress lever on the adapter assembly.
5. Push the adapter assembly towards the receiver, until it is against the receiver.
6. Release lever to allow the adapter assembly to secure itself onto the button on the receiver.


BUTTON
SLOT
LEVER
LIP
RECEIVER
ADAPTER
ASSEMBLY

ATTACHING THE BLANK FIRING ADAPTER.

NOTE

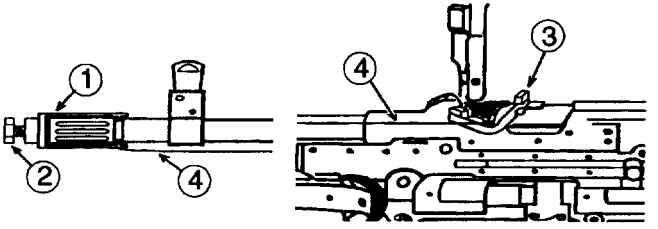
Marine Corp perform step 1 only.

1 Install blank firing adapter (BFA) (1) over the flash hider. Hand tighten the locking bolt (2) to a snug fit. Tighten with a combination/adjustable wrench.

2 Insert the discriminator (3) into the feed tray. Ensure that the wire lead (4) from the discriminator is securely attached to the BFA.

NOTE

For M240/M20C/M240E1 refer to TM 9-1005-316-12&P.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CHAPTER 2
OPERATING INSTRUCTIONS

Section I. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

GENERAL.
Always keep in mind the WARNINGS and CAUTIONS before and during operation. Be sure to perform your after (A) PMCS.

Perform BEFORE PMCS if: (1) you are the assigned operator and the machine gun has been stored and not used for a period of 90 days, or (2) you have been issued the machine gun for the first time.

a BEFORE (B) Checks and services performed prior to the equipment leaving its containment area or performing its intended mission.

b DURING (D) Checks begin when the equipment is being used in its intended mission.

c AFTER (A) Checks and services begin when the equipment is taken out of its mission mode or returned to its containment area.

PMCS PROCEDURES.

Your PMCS table lists inspections and care required to keep your machine gun in good operating condition.

The interval column tells you when and the procedure column tells you how to do a certain check or service. The equipment is "NOT FULLY MISSION CAPABLE IF" column indicates problems which must be corrected before you can operate the machine gun. The terms "ready/available" and "mission capable" refer to the same status: equipment is on hand and is able to perform its combat missions (see DA PAM 738-750).

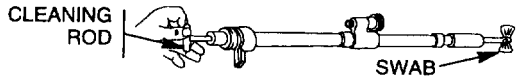
If your machine gun does not perform as required, refer to Troubleshooting in Chapter 3 for possible malfunctions and corrective actions. Report malfunctions on proper DA Form 2404 or refer to DA PAM 738-750.

PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location: Item to Check/ Service	Procedure	Not Fully Mission Capable If:
			WARNING Be sure to clear weapon before disassembling, cleaning, inspecting, transporting, or storing. Do not interchange barrel assembly or bolt assembly from one machine gun to another. Doing so may result in injury to, or death of, personnel. Ensure that assigned/spare barrels have been headspaced and tagged to your receiver. Rotate usage of the barrels.	

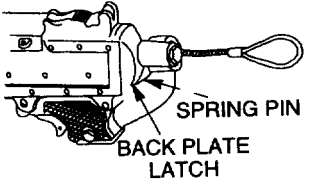
PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location: Item to Check/ Service	Procedure	Not Fully Mission Capable If:
1	Before	Barrel Assembl-ies	Remove barrel (p3-21) and check bore and chamber. Using cleaning rod and swab (item 8, app D), remove oil, foreign material, or obstructions . Install and lock barrel securely in receiver (p3-60). (Spare barrel must also be checked and cleaned before use). Inspect heat shield for cracks (M240B only).	Obstruction in barrel cannot be removed or barrel will not lock securely in receiver. Heat shield missing or broken (M240B only).



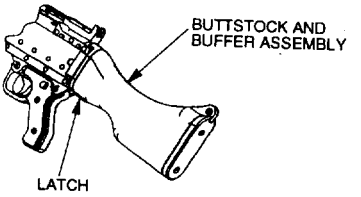
PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location: Item to Check/ Service	Procedure	Not Fully Mission Capable If:
2	Before	Buffer Assembly	Make sure back plate latch is locked. **NOTE** Ensure spring pin is in place.	Latch will not hold buffer assembly in receiver.



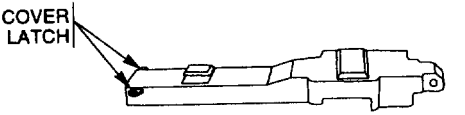
PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location Item to Check/ Service	Procedure	Not Fully Mission Capable If:
			NOTE Do not apply lubricants to composite/rubber components.	
	Before	Buttstock and Buffer Assembly (M240B/ M240G)	Make sure back plate latch is locked. Externally inspect the buttstock for cracks. The buttstock may be cleaned with a brush and soapy water, rinsed, then wiped dry with a clean rag.	Latch will not hold buttstock assembly in receiver. Buttstock is cracked.



PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location Item to Check/ Service	Procedure	Not Fully Mission Capable If:
3	Before	Cover Assembly	Squeeze cover latches and raise cover. Ensure detent holds cover in two open positions. Let go of latches and close cover. Make sure latches hold cover shut. Inspect accessory mounting rail for nicks or burrs (M240B only).	Latches fail to hold cover shut. Accessory rail will not accept optional sighting devices (M240B only).

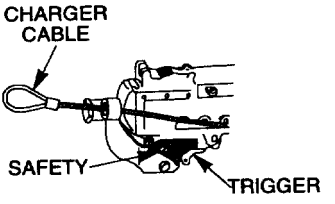


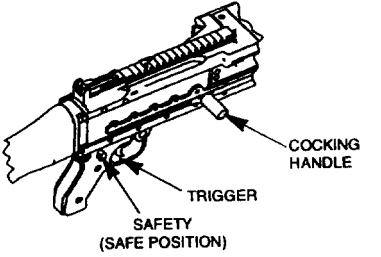
PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location: Item to Check/ Service	Procedure	Not Fully Mission Capable If:
			NOTE The charger cable is on the M240/ M240C models only. The M240B/ M240E1/M240G models have a cocking handle assembly. Weapon should not go on safe (S) with bolt assembly in the forward position.	
4	Before	Charger Cable, Safety, and Bolt Assembly	Pull charger cable to rear to make sure bolt assembly moves freely without binding and locks to the rear. Place safety to safe (S) and pull trigger. Bolt assembly should not move forward. Place safety to fire (F). Keep hold of charger cable and pull trigger. Let bolt assembly return to forward position slowly.	Bolt assembly binds in receiver or fails to lock in rear position. Bolt assembly moves forward with safety on "S".

PREVENTIVE MAINTENANCE CHECKS AND SERVICES

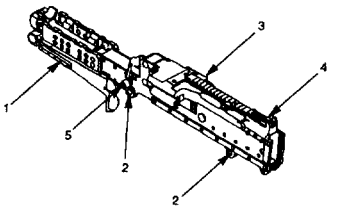
Item No.	Interval	Location Item to Check/ Service	Procedure	Not Fully Mission Capable If:
		Charger Cable, Safety, and Bolt Assembly (Cont)		





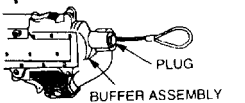
PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location Item to Check/ Service	Procedure	Not Fully Mission Capable If:
5	Before/ After	Receiver Assembly (M240B/ M240G)	Externally inspect the appearance and operation of the bipod (1), the mounting points (2), and the feed cover (3) for spring and detent action. Check the rear sight (4), the slide assembly catches, and that the elevation markings are readable. Check the barrel locking latch (5) for spring tension and locking action. Remove handguard assembly (p3-22) for cleaning and lubrication of receiver assembly (M240B only).	Any parts are broken, missing, or damaged to the extent it could cause gun to malfunction.

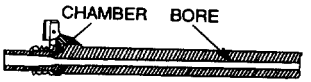


PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location: Item to Check/ Service	Procedure	Not Fully Mission Capable If:
6	During	Machine Gun (Firing Cycle).	**NOTE** If gas regulator has to be set to setting 2 or 3 to increase firing rate, take corrective action to return weapon to primary setting (#1) as soon as possible (p 3-29). Note machine gun firing rate. If firing cycle slows down or becomes sluggish, clean and oil machine gun. Notify unit maintenance as soon as possible if machine gun does not function properly.	
	During	Buffer Assembly/ Buttstock and Buffer Assembly	If plug becomes loose on buffer assembly (M240/M240C/M240E1) or the buttstock appears loose (M240B/M240G), machine gun must be returned to unit maintenance to ensure proper assembly.	

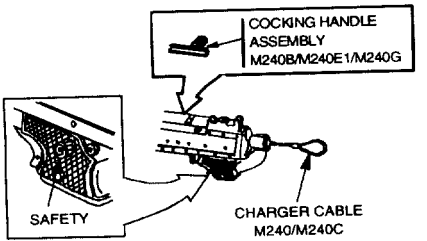


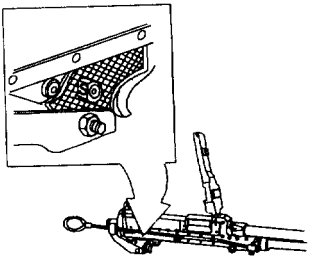
PREVENTIVE MAINTENANCE CHECKS AND SERVICES

Item No.	Interval	Location / Item to Check/ Service	Procedure	Not Fully Mission Capable If:
7	After	Barrel Assemblies.	Clear gun (p2-16). Check chamber and bore for obstructions. Remove heat shield to allow cleaning and lubrication of barrel assembly (M240B) (p3-22). 	
8	After	Machine Gun.	Disassemble, clean, inspect, lubricate, and reassemble machine gun (p3-21 thru 3-60).	Any part is broken, missing, or damaged to the extent that it could cause gun to malfunction.

Section II. OPERATION UNDER USUAL CONDITIONS

LOADING.





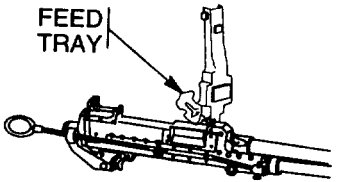
1 Place safety to "F".

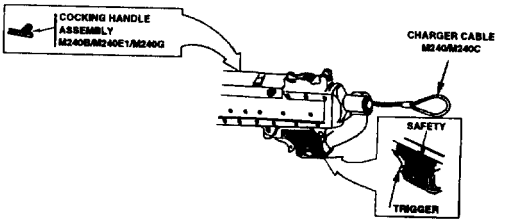
2 Pull charger cable to rear (M240/M240C only) and release. For M240B/M240E1/ M240G, pull cocking handle assembly to the rear. Return cocking handle to forward position (M240B/M240G).

3 Place safety to "S".

4 Push in latches to open cover assembly.

5 Remove any ammunition (ammo), if present.





6 Raise feed tray.

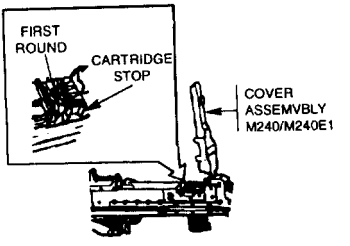
7 Look into chamber to make sure no round is chambered.

8 Lower feed tray.

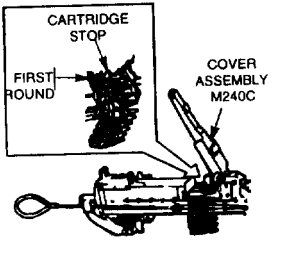
9 Place safety to "F".

10 Hold charger cable (M240/M240C) or cocking handle assembly (M240B/M240E1/M240G) to rear, squeeze trigger, and ease bolt forward to close and lock.

LOADING - CONT.



M240/M240B/
M240E1/M240G



M240C

NOTE

Position open side of links down.

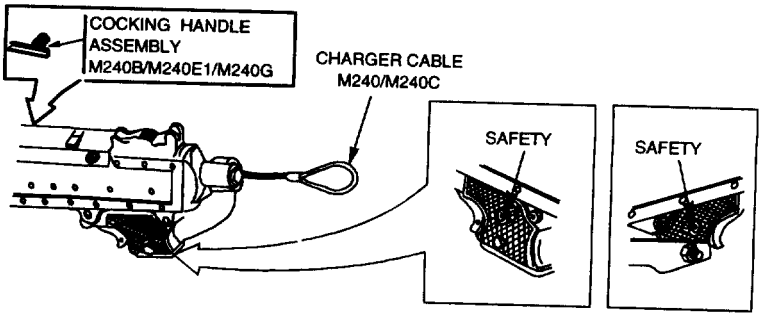
11 Place link belt in feed tray with first round against cartridge stop.

CAUTION

Make sure round does not move away from cartridge stop during closing and latching of cover.

12 Close cover assembly. Make sure it locks shut.

CLEARING.

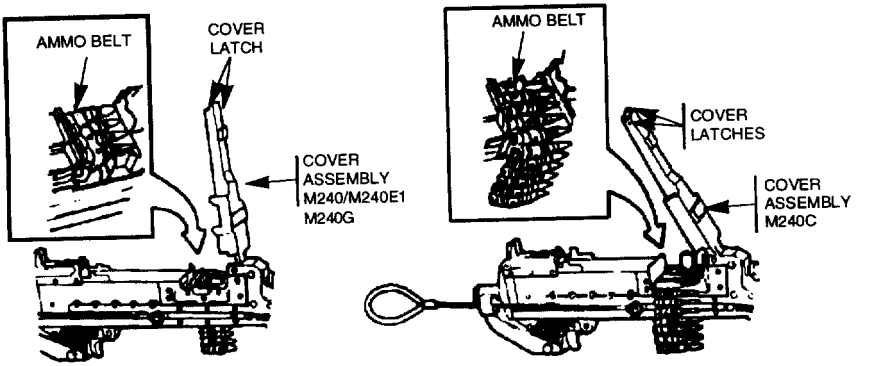


1 Place safety to "F".

2. Pull charger cable (M240/M240C) or cocking handle assembly (M240B/M240E1/M240G) to rear to lock bolt back. Return cocking handle to forward position (M240B/M240G).

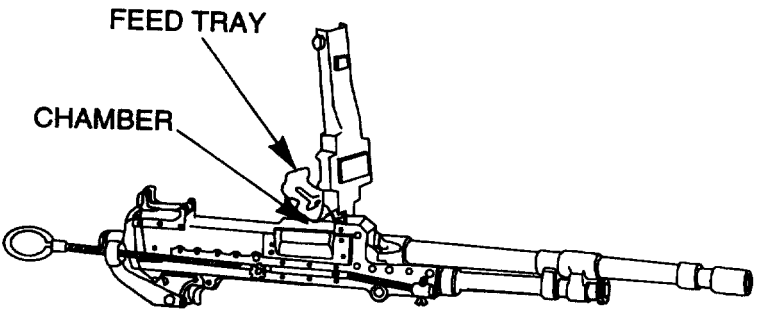
3 Place safety to "S".

CLEARING - CONT.



4 Push in latches to open cover assembly.

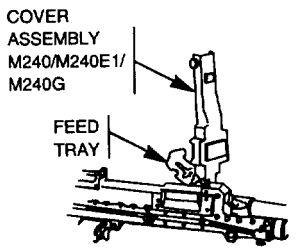
5 Remove ammo belt.

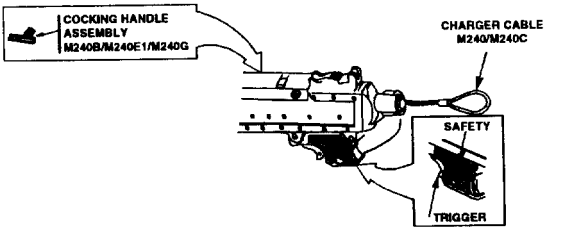


6 Raise feed tray.

7 Look into chamber to make sure it is empty. If a round is still in the chamber, refer to ruptured/stuck cartridge case or live round procedures (p2-25 thru 2-28).

CLEARING - CONT.





8 Lower feed tray.

9 Place safety to "F".

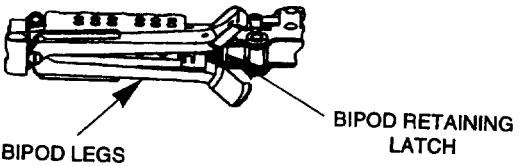
10 Hold charger cable (M240/M240C) or cocking handle assembly (M240B/M240E1/M240G) to rear, depress trigger, and ease bolt forward to close and lock.

11 Close cover assembly. Make sure it locks shut.

NOTE

Be sure bolt is forward with safety in "F" (fire position) when gun is not in use.

BIPOD OPERATION (M240B/M240G).



To operate the weapon from the bipod :

1 Depress the bipod retaining latch, while holding the bipod legs together to disengage from slots in the receiver.

2 Rotate the bipod legs down and release them so they lock in the vertical position.

To return bipod to locked upright position:

1 Hold the bipod legs together to disengage them from locked vertical position.

2 Rotate legs rearward depressing the bipod retaining latch, engage the bipod leg hooks into the slots of receiver. The bipod retaining latch will return to its original position, locking the legs into position.

DEFINITIONS.

STOPPAGE, IMMEDIATE ACTIONS, COOK-OFF, AND HOT OR COLD GUN DEFINITIONS.

1 Stoppage - Any interruption in the cycle of operation of the gun.

2 Immediate action - Prompt actions taken by the crew to overcome a stoppage.

3 Remedial Action - Action taken to identify stoppage, if immediate action fails.

4 Cook-off - Ignition of a chambered round of ammunition due to the heat of the weapon.

5 Hot or Cold gun - This is a peacetime classification only. The gun will be classed as a hot or cold gun only in the interest of safety.

CLASSIFICATION OF HOT GUN.

1 More than 200 rounds fired within a 2 minute period.

2 A long continuous burst or repeated firing of the weapon even though you do not reach 200 rounds in 2 minutes.

3 Less than 15 minutes have lapsed without a round being fired from a hot gun.

4 If the Vehicle Commander for any reason decides the weapon is hot.

IMMEDIATE ACTION FOR A HOT GUN.

WARNING

If nothing is ejected and you have a hot gun (200 rounds fired within a 2 minute period). Do not open the cover. Place safety to "S", keep machine gun pointed down range, and remain away from machine gun for 15 minutes. After 15 minutes, clear your machine gun (p2-16).

The climate temperature in different regions will make a difference as to what constitutes a hot gun. A hot, sunny day can cause a cookoff within 50 rounds, weapon and ammunition in sun.

1 Charge the weapon.

2 Attempt to fire.

3 If the gun does not fire, pull charger cable/cocking handle assembly rearward to lock bolt assembly back (return cocking handle to forward position (M240B/ M240G only)), place safety on "S", then:

If Hot Gun - Keep pointed down range for 15 minutes, then perform remedial action.

If Cold Gun - Perform remedial action.

REMEDIAL ACTION.

1 Clear the weapon (p 2-16 thru 2-19).

2 Visually inspect weapon.

3 Load and attempt to fire.

4 If weapon does not fire notify unit maintenance.

RUNAWAY MACHINE GUN.

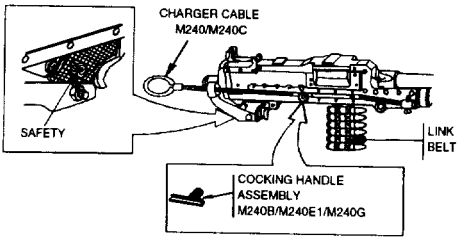
WARNING

Always keep machine gun pointed down range.

Never reload a runaway machine gun until it is repaired. Be sure machine gun is cleared before removing it from vehicle/tripod mount.

If runaway occurs (machine gun won't stop firing), take any of the 3 actions below to stop the runaway, then notify unit maintenance.

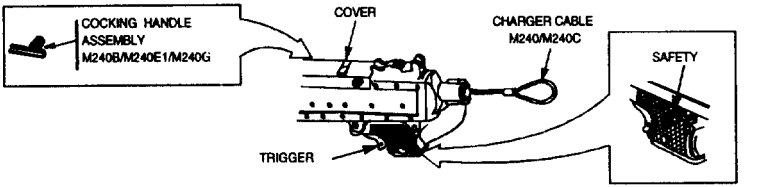
1. Let machine gun fire if near end of link belt.
2. Break link belt (grasp belt and twist it firmly).
3. Grab charger cable (M240/M240C) or cocking handle assembly (M240B/M240E1/M240G), pull all the way back and hold. Place safety to "S" and remove ammunition belt.



STUCK CARTRIDGE CASE OR LIVE ROUND.

WARNING

Stay clear of muzzle. Do not allow round to hit any hard surface or it may fire. Dispose of live round in accordance with local regulations.



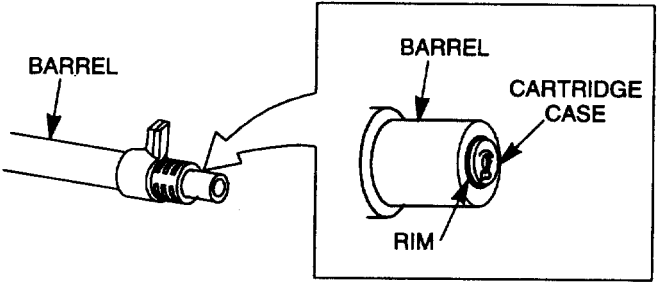
If it did fire and didn't extract, you have a stuck cartridge case. If it didn't fire and didn't extract, you have a stuck live round.

1 Charge the weapon.

2. Place safety on "S".

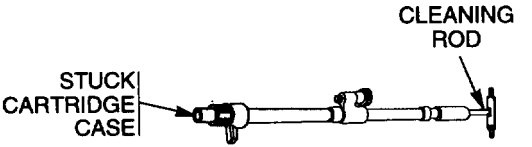
3 Push cocking handle to forward position (M240B/M240G).

STUCK CARTRIDGE CASE OR LIVE ROUND (cont).

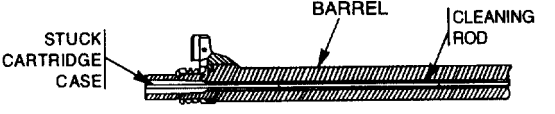


4 Wait until barrel is cool; remove barrel (p3-21, steps 2 and 3, and p3-22, step 4), and remove cartridge case from chamber of barrel, or pry rim (if case is tight).

ALTERNATE METHOD.



1 Remove swab holder section from cleaning rod and insert cleaning rod through muzzle end of barrel and gently tap out cartridge.



2 Push end of cleaning rod against stuck case. Push cleaning rod to remove case with weapon in mounted position.

RUPTURED CARTRIDGE CASE.

1 Charge weapon (p2-13, steps 1 and 2).

2 Place safety to "S".

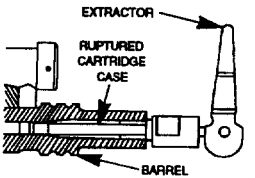
3 Push cocking handle to forward position (M240B only).

4 Remove barrel (p3-21, steps 2 and 3, p3-22, step 4).

NOTE

In the event a live round is fed into a ruptured case, remove live round first (p2-25), then remove ruptured cartridge case.

5 Push threaded end of extractor post through ruptured case. Pull on handle to remove case.



Section III. OPERATION UNDER UNUSUAL CONDITIONS

Under unusual conditions, clean and lubricate machine gun more often.

HOT, DUSTY, AND SANDY AREAS. Clean often. Wipe oil from exposed surfaces with clean wiping rag (item 7, app D). Cover weapon as much as possible to keep dust and sand out of parts.

HOT, WET CLIMATE. Inspect often. Dry, clean, and lubricate lightly as necessary.

EXTREMELY COLD CLIMATE. Keep free of moisture. Lightly oil with LAW (item 4, app D).

AFTER EXPOSURE TO WATER. Disassemble, clean, oil and reassemble as soon as possible. Make sure it's dry.

NUCLEAR, BIOLOGICAL, AND CHEMICAL (NBC) DECONTAMINATION. Decontamination procedures can be found in FM 3-5.

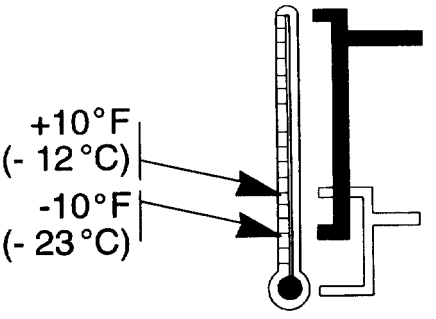
CHAPTER 3
MAINTENANCE INSTRUCTIONS

Section I. LUBRICATION INSTRUCTIONS

LUBE GUIDE. Under all but the coldest arctic conditions, LSA (item 6, app D), CLP (item 1, app D), or LSA-T (item 5, app D)(Marine Corp only), are the lubricants to use on your machine gun. Remember to remove excessive oil from the bore before firing.

NOTE

Lubrication instructions are mandatory. Do not mix lubricants on the same weapon. The weapon must be thoroughly cleaned during change from one lubricant to another. Dry cleaning solvent (available to unit maintenance) is recommended for cleaning during change from one lubricant to another.



CLP - Cleaner, lubricant and preservative (item 1, app D).

LSA - Weapons lubricating oil, semifluid (item 6, app D).

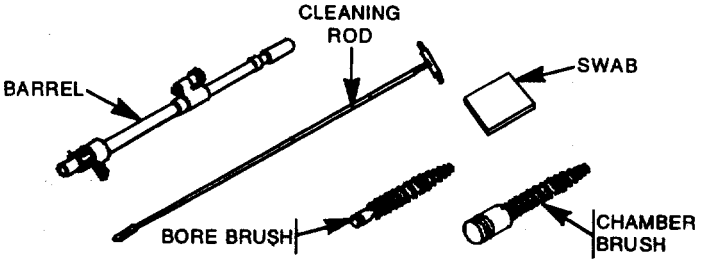
LSA-T - Weapons lubricating oil, semifluid, with teflon (item 5, app D).

Between $10^{O}F$ ($-12^{O}C$) and $-10^{O}F$ ($-23^{O}C$) use CLP, LSA or LAW. Below $-10^{O}F$ ($-23^{O}C$) use only LAW.

LAW - Weapons lubricating oil, arctic (item 4, app D).

Lightly Lube - A film of oil barely visible to the eye.

LUBRICATION INSTRUCTIONS (cont).



WARNING

Be sure to clear weapon before disassembling, cleaning, inspecting, or storing

1 After firing, field-strip your machine gun (p3-21). Clean bore and chamber with cleaning rod, chamber brush, bore brush, and swab (item 8, app D) soaked with RBC (item 3, app D) or CLP (item 1, app D) until a clean swab can be run through the bore without getting dirty.

2 Clean powder-fouled parts, except the buffer, with a wiping rag (item 7, app D) dampened with RBC (item 3, app D) or CLP (item 1, app D).

3 Wipe dry and lube as required. Inspect and run a lightly oiled swab (item 8, app D) through the bore and chamber (p3-37).

4 If your machine gun isn't used, it still needs complete cleaning and lubing at least every 90 days. (Unusual conditions could shorten this interval.)

Section II. TROUBLESHOOTING PROCEDURES

INTRODUCTORY INFORMATION.

This table lists the common malfunctions which you may find during the operation or maintenance of the machine gun or its components. You should perform the tests/ inspections and corrective actions in the order listed.

This manual cannot list all malfunctions that may occur, nor all tests or inspections and corrective actions. If a malfunction is not listed or is not corrected by listed corrective actions, notify unit maintenance.

NOTE

Troubleshooting procedures are written for one machine gun but apply to all models.

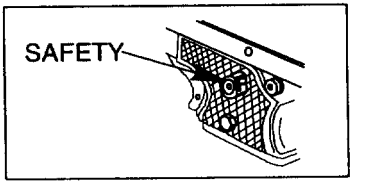
TROUBLESHOOTING TABLE

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

1. FAILS TO FIRE ON INITIAL BURST.

Step 1. Check that weapon is properly charged.
Charge the weapon.

Step 2. Check for safety in "S"" position.
Move safety to "F".

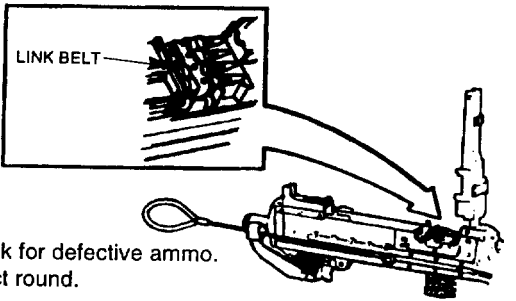


TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

1. FAILS TO FIRE ON INITIAL BURST (Cont).

Step 3. Check that link belt is properly loaded.
Remove and reinstall link belt properly (p2-15).



Step 4. Check for defective ammo.
Eject round.

TROUBLESHOOTING TABLE - CONT

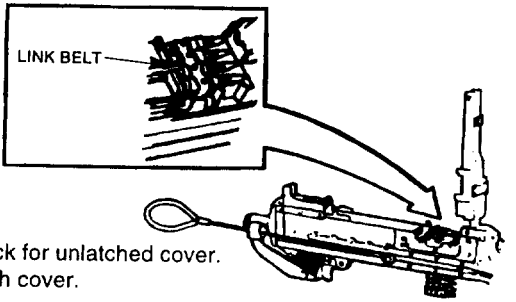
MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION
2. FAILURE TO FEED.
Step 1. Inspect for proper lubrication. Lube as required (p3-1).
Step 2. Check for defective ammo or links. Remove defective ammo/links; install new ammo/links.
Step 3. Check for obstruction in receiver. Remove obstruction.
Step 4. Inspect gas cylinder for carbon buildup. If carbon buildup is present, clean gas cylinder (p 3-51).
Step 5. Check for insufficient gas pressure. Notify unit maintenance.

TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

2. FAILURE TO FEED (Cont).

Step 6. Check for misaligned rounds in link belt or inverted link belt. Align rounds in link belt or reinstall link belt properly (p2-15).



Step 7. Check for unlatched cover. Latch cover.

TROUBLESHOOTING TABLE - CONT

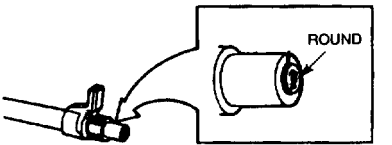
MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

2. FAILURE TO FEED (Cont).

Step 8. Inspect cover assembly for damaged, weak, worn or missing operating parts.
Notify unit maintenance.

3. STOPS FIRING.

Step 1. Check for defective round in chamber.
Eject round.

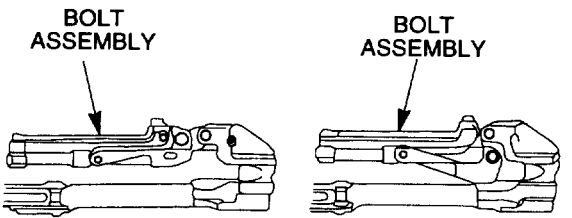


TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

3. STOPS FIRING.

Step 2. Check that bolt assembly is fully forward and locked.
Remove obstruction or clean and lubricate as required (p3-46).



TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

3. STOPS FIRING (Cont).

Step 3. Check for unfired round with dented primer.
Eject round. Notify unit maintenance.

Step 4. Check for sticking feed mechanism.
Clean and lubricate feed mechanism (p3-42). If problems still exist, notify unit maintenance.

Step 5. Check for short recoil.
Clean and lubricate bolt and operating rod assembly (p3-48). If problems still exist, notify unit maintenance.

TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

4. SLUGGISH OPERATION.

Step 1. Check for dirty receiver.
Clean and lubricate (p3-54).

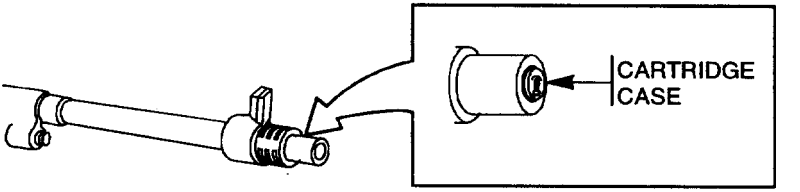
Step 2. Inspect for sufficient lubricant.
Lubricate (p3-0).

TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

5. FAILURE TO CHAMBER.

Step 1. Check for stuck/ruptured cartridge case.
Remove cartridge (p2-25, p2-28).



Step 2. Check for dirty ammunition.
Wipe ammo off with a clean, dry rag (item 7, app D).

TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

5. FAILURE TO CHAMBER (Cont).

Step 3. Inspect receiver for carbon buildup.
Clean receiver if necessary (p3-54).

Step 4. Check for damaged round.
Remove round and recharge weapon.

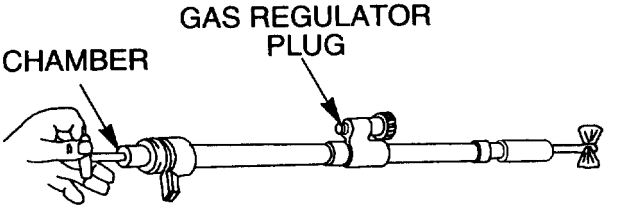
Step 5. Check for damaged or weak driving spring.
Notify unit maintenance if two or more broken strands are found within a one inch area.

TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

Step 6. Inspect chamber for dirt.
Clean chamber (p3-35).

Step 7. Check for a damaged gas regulator plug.
Notify unit maintenance.



TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

6. FAILURE TO FIRE.

Step 1. Check for faulty ammo.
Replace ammo.

Step 2. Check for broken or damaged firing pin.
Notify unit maintenance.

Step 3. Check for broken or weak driving spring.
Notify unit maintenance if two or more strands are broken within a one inch area.

TROUBLESHOOTING TABLE - CONT

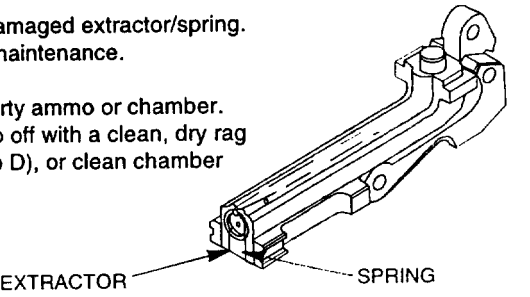
MALFUNCTION	TEST OR INSPECTION	CORRECTIVE ACTION

7. FAILURE TO EXTRACT.

Step 1. Check for short recoil.
Notify unit maintenance.

Step 2. Check for damaged extractor/spring.
Notify unit maintenance.

Step 3. Check for dirty ammo or chamber.
Wipe ammo off with a clean, dry rag (item 7, app D), or clean chamber (p3-35).



TROUBLESHOOTING TABLE - CONT

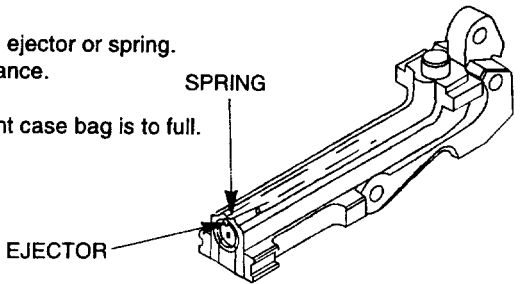
MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

8. FAILURE TO EJECT.

Step 1. Check for short recoil.
Notify unit maintenance.

Step 2. Check for damaged ejector or spring.
Notify unit maintenance.

Step 3. Check to see if spent case bag is to full.
Empty bag.

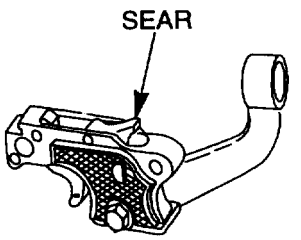


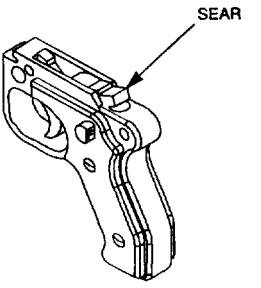
TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION

9. FAILURE TO COCK OR RUNAWAY WEAPON.

Step 1. Check for broken, worn, or burred sear.
Notify unit maintenance.



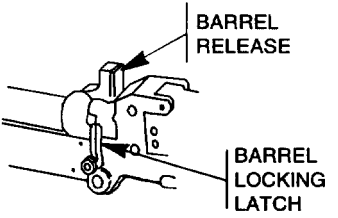


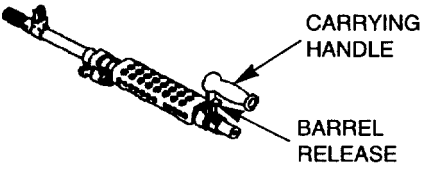
TROUBLESHOOTING TABLE - CONT

MALFUNCTION TEST OR INSPECTION CORRECTIVE ACTION
9. FAILURE TO COCK OR RUNAWAY WEAPON (Cont).
Step 2. Check to see if operating rod sear notch is worn. Notify unit maintenance.
Step 3. Check to see if sear is stuck in trigger housing. Notify unit maintenance.
Step 4. Check for short recoil. Notify unit maintenance.

Section III. MAINTENANCE PROCEDURES

FIELD-STRIP.





WARNING

A hot barrel can burn you. If the barrel is hot, use your heat resistant mittens.

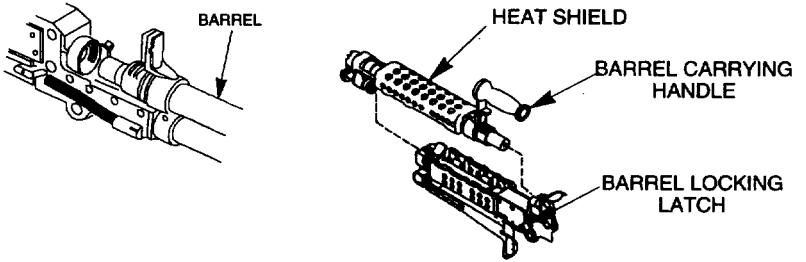
1 Clear your machine gun (p2-16). *

2 Depress barrel locking latch and hold.

3 Turn barrel release/carrying handle to upright position.

*To change barrels use steps 1, 2, and 3 above, and step 4 (p3-22).

FIELD-STRIP - CONT.

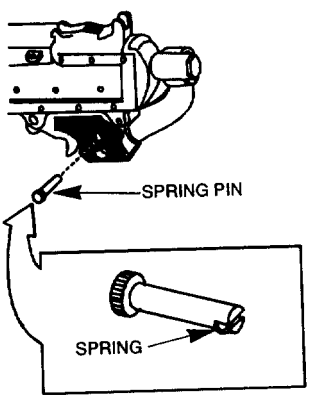


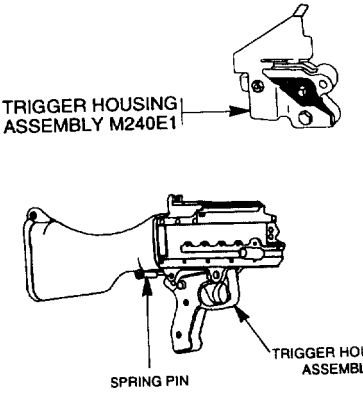
CAUTION

Be sure bolt is forward or receiver can be damaged.

4 Remove barrel. Push forward and lift barrel out.

5 Remove heat shield assembly from barrel. Lift rear of heat shield assembly off barrel then pry front tabs out of holes on gas hole bushing (M240B only).

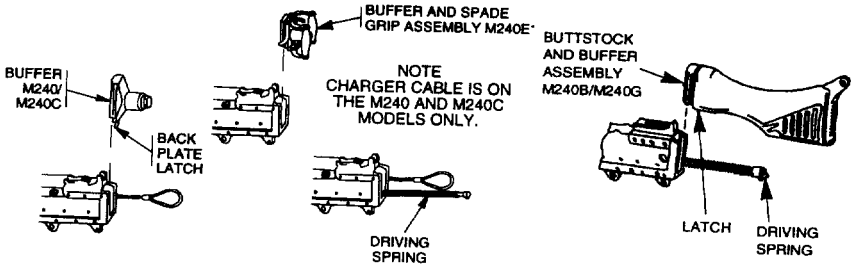




6 Depress spring and remove spring pin. (This can usually be done without tools).

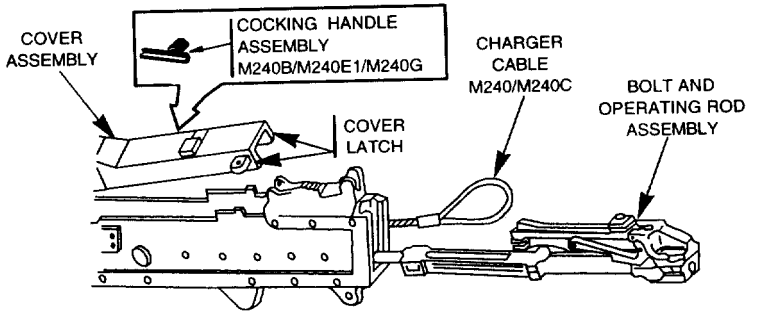
7 Pull trigger housing assembly down and back. Pull charger cable (M240/M240C) through cable guide.

FIELD-STRIP - CONT.



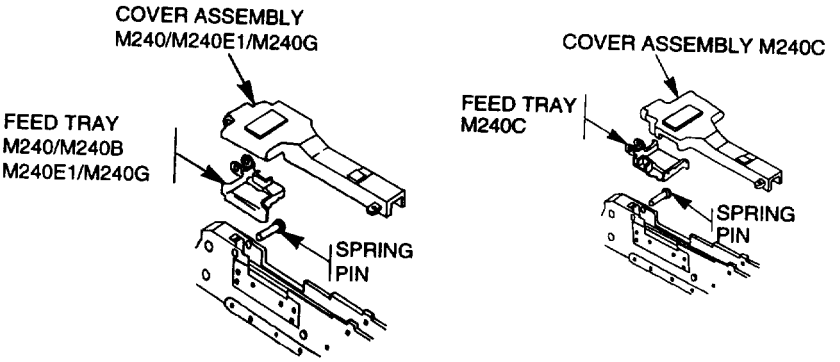
8 Depress back plate latch and lift buffer/buttstock assembly straight up.

9 Press driving spring in, up, and pull out.

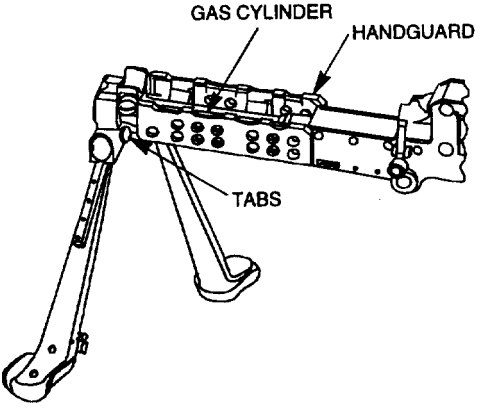


10 Depress cover latches and raise cover assembly. Pull charger cable (M240/M240C) or cocking handle assembly (M240B/M240E1/M240G) back; then pull bolt and operating rod assembly out.

FIELD-STRIP - CONT.



11 Close cover. Push out spring pin as far as possible with the back of buffer. Then remove pin with fingers. Depress cover latches, lift upwards and remove cover assembly. Remove feed tray.



11 Extend bipod legs to down and locked position (M240B/M240G).

12 Pull handguard straight down and off gas cylinder (M240B only).

CLEANING, INSPECTION, AND REPAIR.

WARNING

Be sure to clear weapon before disassembling, cleaning, inspecting, transporting, or storing.

Using gasoline, kerosene, hydraulic oil, benzene, bensol, high pressure water, steam, or air for cleaning is prohibited.

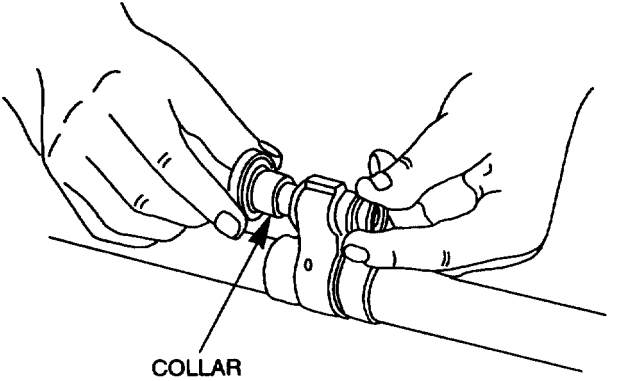
CAUTION

Do not use abrasives to clean the bore, piston, gas cylinder, or gas regulator plug.

Do not submerge buffer in any liquid. Wipe with clean wiping rag only.

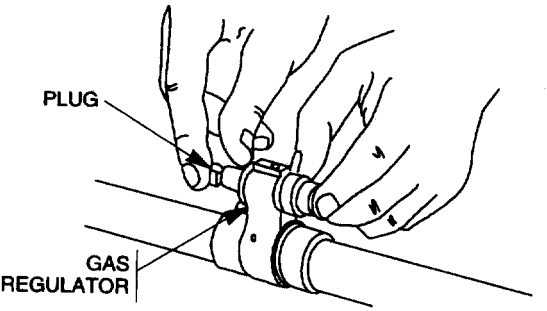
Do not allow cleaning solvents to come in contact with the rubber handle of the charger cable (M240/M240C models only).

Do not apply lubricants to composite/rubber components.



1 Press in and rotate collar counterclockwise until it releases, then pull it out.

CLEANING, INSPECTION, AND REPAIR - CONT.



2 Pull gas regulator plug from gas hole bushing.

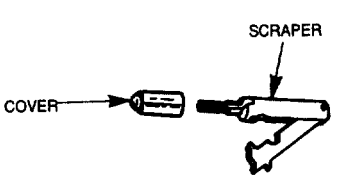
NOTE

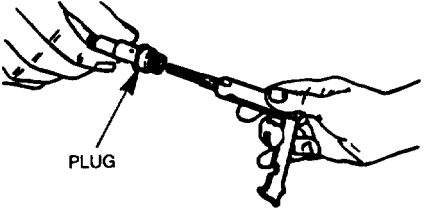
If the plug cannot be removed by hand from the gas regulator, send the gun to unit maintenance for removal.

USE SCRAPER TO REMOVE CARBON.

WARNING

Use care when removing excess carbon, carbon may chip off and fly into eyes.

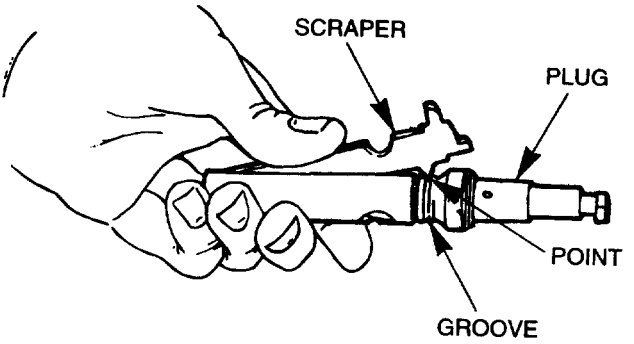




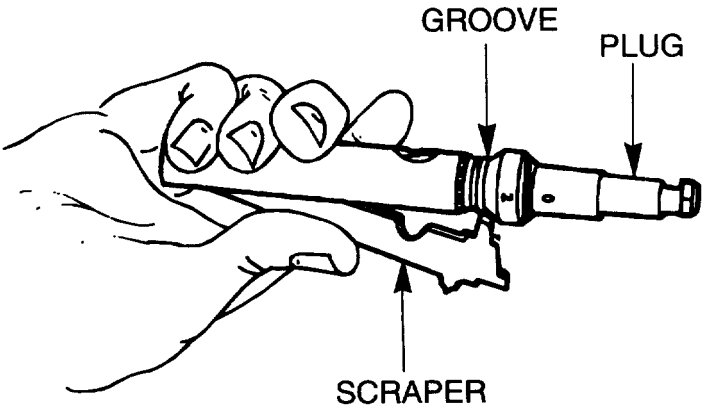
3 Remove cover from scraper.

4 Insert scraper into center hole of gas regulator plug. Twist scraper clockwise to remove carbon from center hole until scraper is fully seated against gas regulator plug.

CLEANING, INSPECTION, AND REPAIR - CONT.

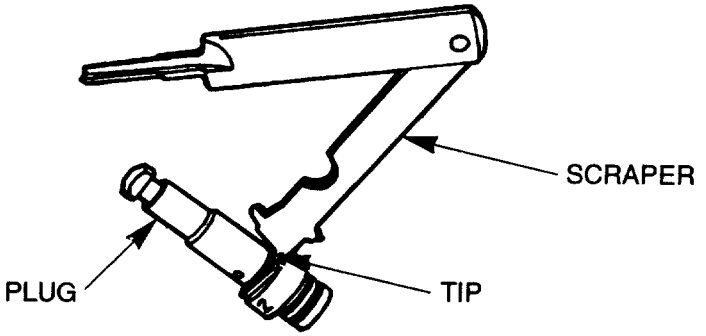


5 Fold scraper and press point into groove. Turn gas regulator plug clockwise to remove carbon from groove on gas regulator plug.



6 Pivot scraper blade 180° to opposite side and place groove tip of scraper into groove of gas regulator plug and turn clockwise to remove carbon from groove on plug.

CLEANING, INSPECTION, AND REPAIR - CONT.

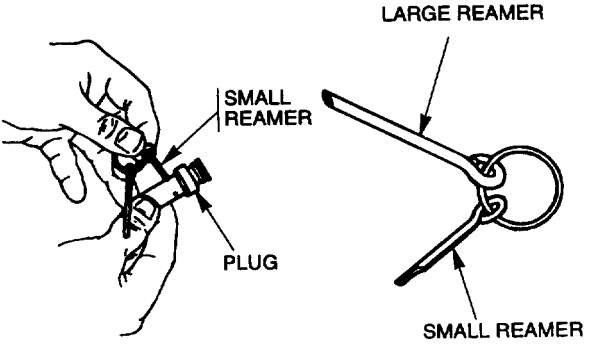


7 With tip of scraper, scrape carbon from surface of gas regulator plug.

USE REAMER TO REMOVE CARBON.

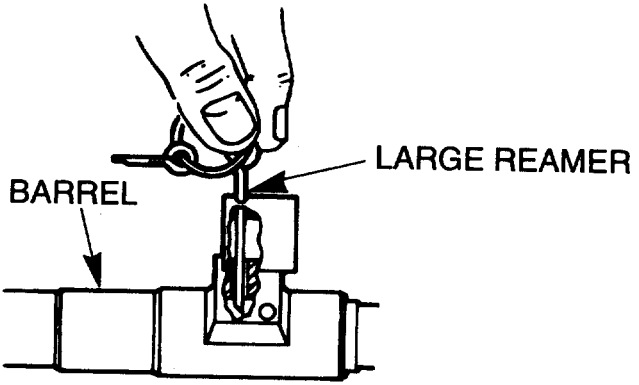
NOTE

When using reamers, apply hand pressure only.

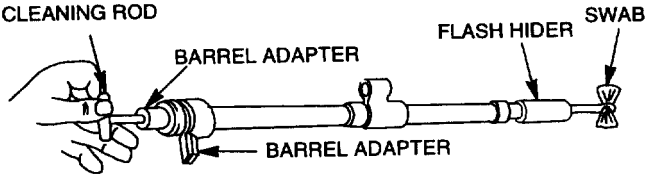


8 Insert small reamer into each gas inlet hole of gas regulator plug and twist back and forth to remove the carbon.

CLEANING, INSPECTION, AND REPAIR - CONT.



9 Insert large reamer through hole in gas port bushing into gas port hole in barrel; and twist back and forth until reamer enters bore of barrel to remove carbon.



CAUTION

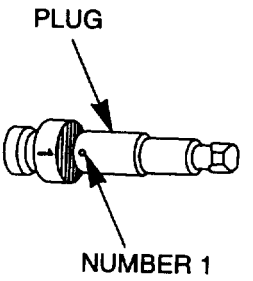
Do not lube plug or recess in barrel for plug.

Do not use abrasives to clean plug.

10 Remove dirt and corrosion from bore using cleaning rod and swab (item 8, app D) dampened with CLP (item 1, app D). Remove dirt and corrosion from other parts using wiping rag (item 7, app D) dampened with CLP (item 1, app D) or RBC (item 3, app D). Lightly oil with CLP (item 1, app D), LAW (item 4, app D), LSA (item 6, app D), or LSA-T (item 5, app D) (Marine Corp only).

11 Inspect for cracks, dents, burrs, or other damage on flash hider/suppresser, barrel adapter, barrel carrying handle, barrel release and front sight.

CLEANING, INSPECTION, AND REPAIR - CONT.

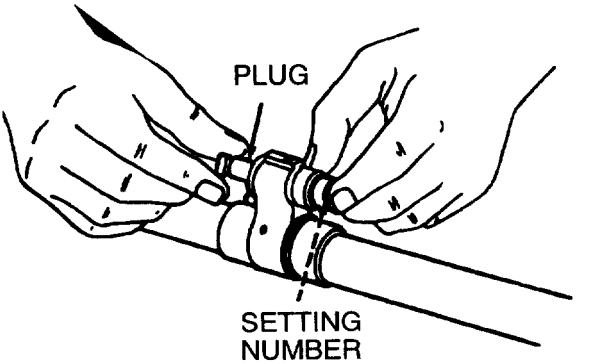


NOTE

The plug is designed with three gas inlet settings to maintain the rate of fire. This design is intended to maintain a consistent rate of fire under adverse conditions and NOT TO INCREASE YOUR RATE OF FIRE. Gas inlet setting number 1 (number facing the barrel) is preferred for normal conditions.

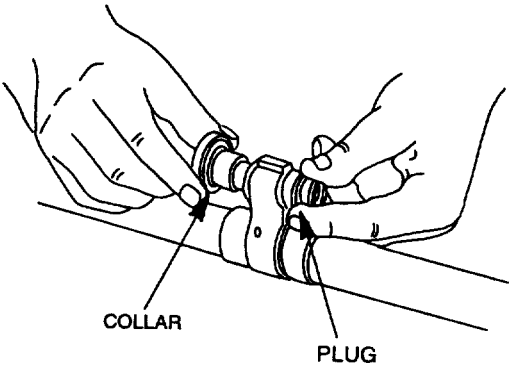
NOTE

Setting 2 and 3 are not intended to increase your rate of fire. Gas inlet setting number 1 is preferred for normal operating conditions.

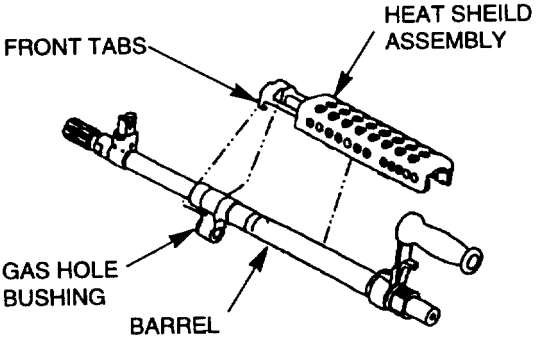


12 Place gas regulator plug with gas inlet setting number 1 hole facing the barrel.

CLEANING, INSPECTION, AND REPAIR - CONT.



13 Install collar on gas regulator plug. Rotate collar until it slips onto gas regulator plug. Press in and rotate to lock in place (pull collar to be sure it is in the locked position).



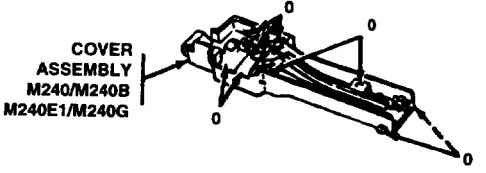
14 Install heat shield on barrel. Make sure front tabs snap into hole on gas hole bushing, then push down onto barrel (M240B only).

CLEANING, INSPECTION, AND REPAIR - CONT.

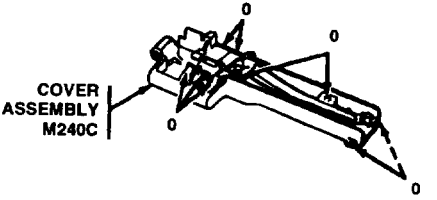
CAUTION

Do not use brushes when cleaning cover assembly, use clean rag only.

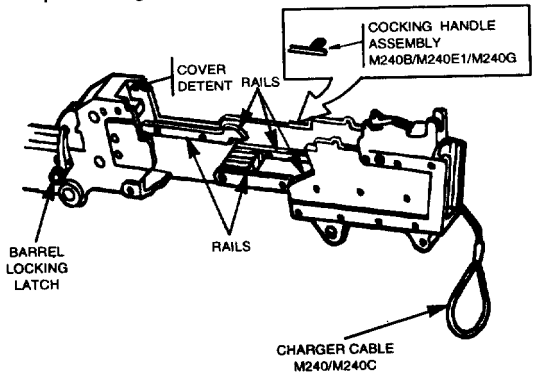
15 Check cover assembly for smooth operation, spring tension, bent or missing parts, or excessive wear.



O - Lightly oil moving parts.



16 Check accessory mounting rail for nicks or burrs which will prevent proper attachment of optional sighting devices (M240B).



17 Check for bends and cracks, free movement of charger cable (M240/M240C) or cocking handle assembly (M240B/M240E1/M240G), and excessively worn, burred, or chipped rails. Check barrel locking latch and cover detent for proper spring tension.

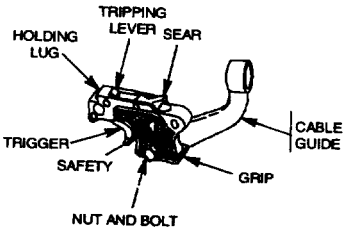
CLEANING, INSPECTION, AND REPAIR - CONT.

18 Check trigger assembly.

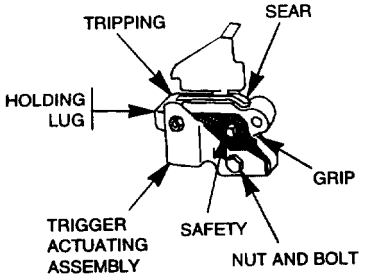
NOTE

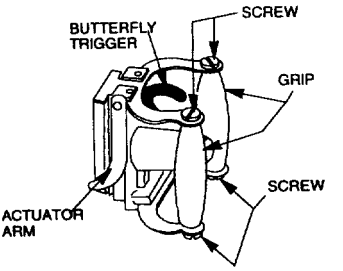
Perform step 18a for M240/M240C, step 18b for M240E1, and step 18c for M240B/M240G machine gun.

a Check for broken grips, bent cable guide, loose nut and bolt, and chipped or cracked trigger housing holding lug.



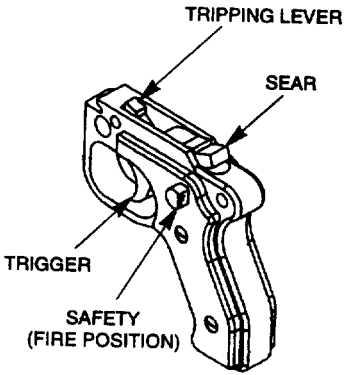
b Check for broken grips, and chipped or cracked trigger housing holding lug. Check for bent, cracked or broken trigger actuating assembly, butterfly trigger or actuating arm. Check for loose or missing nut, bolt and screws.





CLEANING, INSPECTION, AND REPAIR - CONT.

c Check for broken grips, and chipped or cracked trigger housing holding lug. Ensure trigger guard does not interfere with full operation of trigger (M240B/M240G).



19 Check tripping lever and sear for burrs, cracks, chips, and wear.

20 Notify unit maintenance if problems exists.

NOTE

To place safety to "S", the sear must be up.

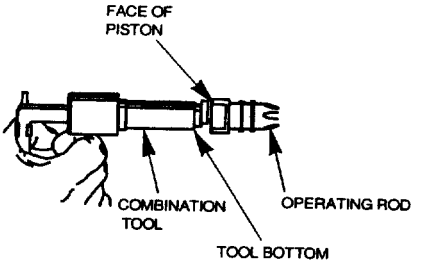
21 Check cocking action by pushing back on tripping lever (sear will raise). Pull trigger (sear will lower).

22 Check safety functions. When safety is placed to "S", pull trigger (sear will not lower). When safety is placed to "F", pull trigger (sear will lower).

23 Lightly lubricate tripping lever and sear surfaces.

CLEANING, INSPECTION, AND REPAIR - CONT.

USE COMBINATION TOOL TO CLEAN CARBON FROM PISTON HEAD CAVITY OF OPERATING ROD.

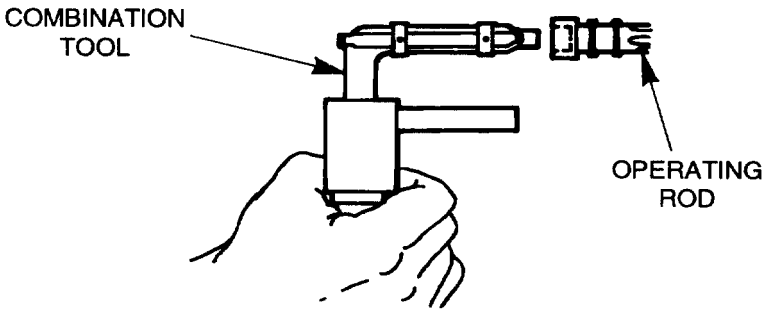


CAUTION

Do not use abrasives to clean the operating rod piston.

Be sure tool bottom is securely against face of piston.

24 Insert combination tool into bottom of cavity of piston end of operating rod. Squeeze handles firmly and twist combination tool clockwise to remove carbon.



25 Insert screwdriver end of combination tool into cavity of piston end of operating rod to remove carbon residue in bottom of cavity.

26 Clean all other areas of operating rod, firing pin, and spring pin with wiping rag (item 7, app D) dampened with CLP (item 1, app D). Lightly oil after cleaning.

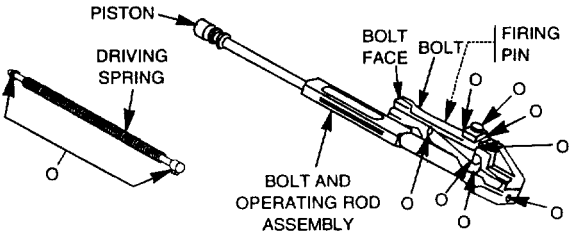
CLEANING, INSPECTION, AND REPAIR - CONT.

27 Check bolt and operating rod assembly for burrs, cracks, broken pins, or frozen roller. Push down on roller to make sure it will retract. Check driving spring for broken strands. Notify unit maintenance if two or more broken strands are found within a one inch area.

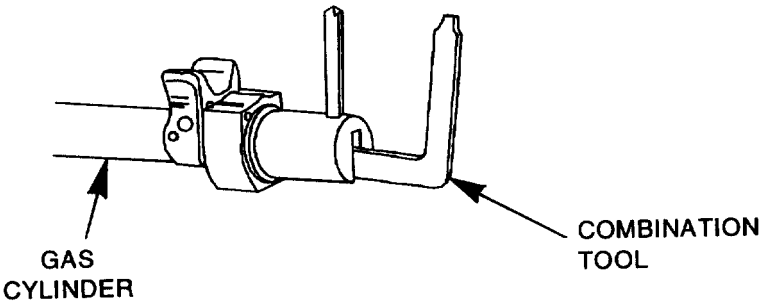
NOTE

Do not lubricate face of bolt. Do not oil piston.

O - Lightly oil driving spring. Lightly oil bolt and operating rod assembly moving parts, polished areas, firing pin, and roller.



USE COMBINATION TOOL TO CLEAN GAS CYLINDER END OF RECEIVER BODY.

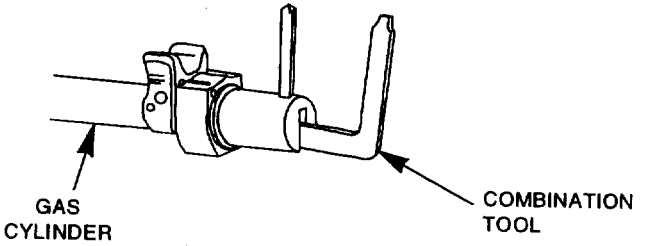


CAUTION

Do not use an abrasive to clean gas cylinder end of receiver.

28 Insert combination tool with handle upward carefully into the fore end of the gas cylinder of the receiver body.

CLEANING, INSPECTION, AND REPAIR - CONT.

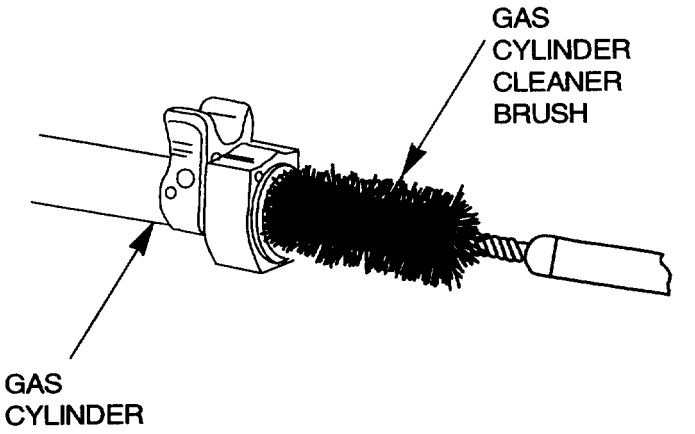


CAUTION

If combination tool is not properly seated, it could cause damage to smaller diameter of gas cylinder.

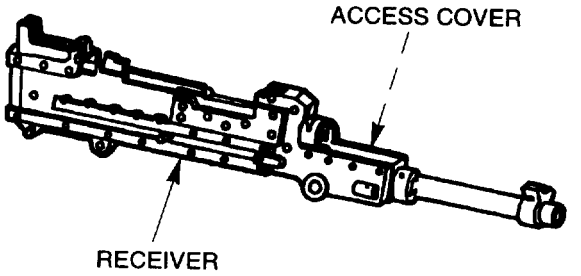
29 Be sure the combination tool shoulder is fully inserted and seated against the fore end of gas cylinder in receiver body.

30 Apply slight pressure to handles and turn combination tool clockwise to remove carbon.



31 Clean gas cylinder bore with gas cylinder cleaning brush dampened with CLP (item 1, app D) or RBC (item 3, app D).

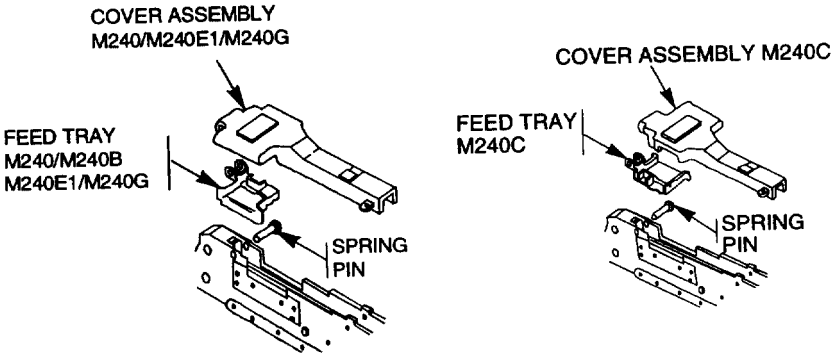
CLEANING, INSPECTION, AND REPAIR - CONT.



32 With wiping rag (item 7, app D) dampened with CLP (item 1, app D) or RBC (item 3, app D), remove dirt and corrosion from area under front access cover of receiver and all other parts and areas.

33 Ensure proper operation of ejection port cover and bipod latch (M240B).

REASSEMBLY.

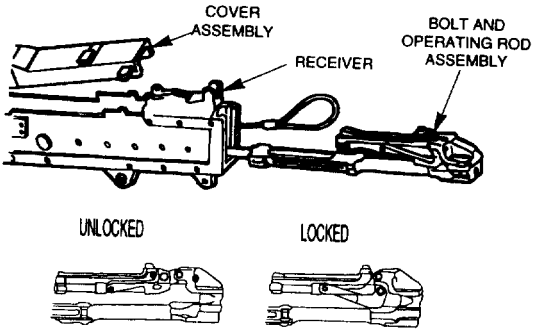


1 Position feed tray and cover assembly; push cover assembly forward; close cover and insert spring pin.

NOTE

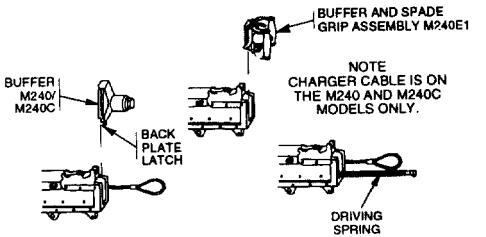
Insert spring pin from right side.

REASSEMBLY - CONT.



2 Open cover assembly. Be sure cover detent holds cover assembly open. If cover assembly does not remain open in two positions, notify unit maintenance.

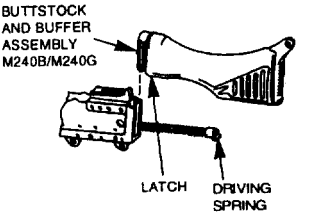
3 Set bolt and operating rod assembly on top of rails (receiver). Extend bolt to unlocked position, then push the assembly all the way in the receiver. Close cover assembly and lock



NOTE

Charger cable is on the M240/ M240C models only.

4 Insert driving spring into operating rod assembly. Push it in fully and lower it to seat the stud in hole of receiver.

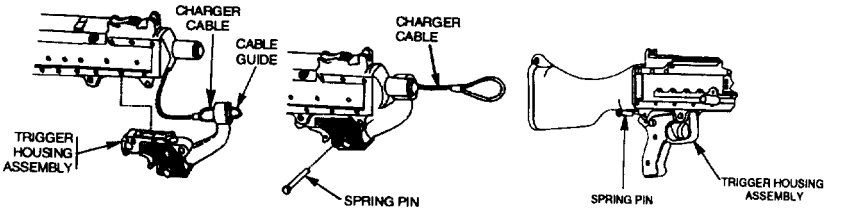


5 Install buffer assembly/buffer and spade grip assembly/buttstock and buffer assembly and make sure it latches.

NOTE

Be sure operating rod assembly is properly seated in receiver before operating weapon. Top of buffer/ buffer and spade grip/buttstock should be flush with top of receiver.

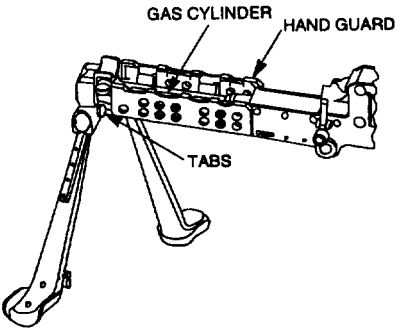
REASSEMBLY - CONT.



6 Slide charger cable (M240/M240C) through cable guide and position trigger housing assembly into place.

NOTE

Place safety in fire position; position front of housing assembly into place and pivot into position.



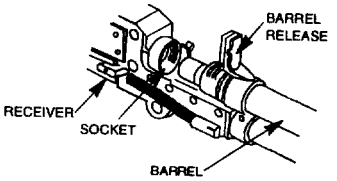
7 Insert spring pin.

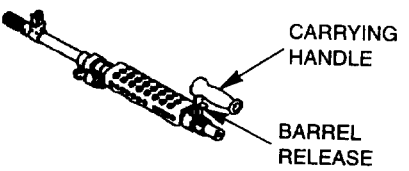
NOTE

Pin can be inserted from either side. For M240B insert from right side only.

8 Snap handguard over gas cylinder making sure tabs are to the front of the weapon (M240B).

REASSEMBLY - CONT.





WARNING

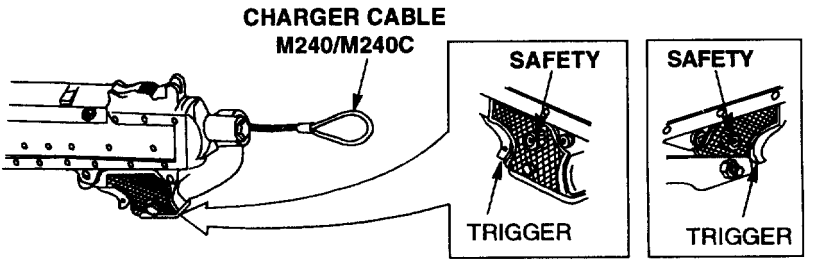
Before firing, make sure the barrel is locked tightly in the receiver. If the barrel is not locked tight, threads in receiver could be damaged or cause personal injury.

NOTE

Barrel release must be in upright position when installing barrel.

9 Insert barrel fully into socket and push barrel release/barrel carrying handle to the right as far as it will go (fewer than 2 or more than 7 clicks indicate defective parts) to lock. Do not force. If barrel binds in socket or if barrel release/barrel carrying handle will not rotate when pushed, do not pound on barrel release/barrel carrying handle. Take machine gun to unit maintenance.

SAFETY/FUNCTION CHECK.



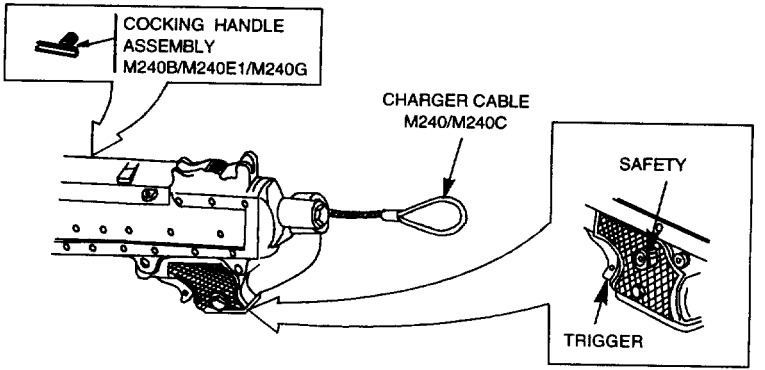
1 Place safety to "F".

2 Pull charger cable (M240/M240C) or cocking handle (M240B/ M240E1/ M240G) to rear to lock bolt back. Return cocking handle to forward locked position (M240B/ M240G).

3 Place safety to "S".

4 Depress trigger - nothing should happen.

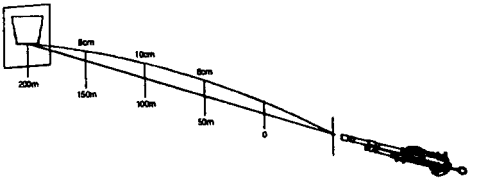
SAFETY/FUNCTION CHECK - CONT.



5 Place safety to "F".

6 Hold charger cable (M240/M240C) or cocking handle assembly (M240B/M240E1/M240G) to rear, depress trigger, and ease bolt forward to close and lock.

SIGHT CHECK/SIGHT SETTING (M240B/M240E1/M240G ONLY).



Steps 1 and 2 for M240E1 only.

1 The gun is usually zeroed at 200m.

2 To set it for shorter distances, it will be necessary to obtain the following mean points, taking into account the elements of the bullet trajectory and the displacement angle between the line of sight and the line of elevation of the barrel.

Firing at:	50m	+6 cm from point sighted
	100m	+10 cm from point sighted
	150m	+8 cm from point sighted
	200m	0 or on point sighted

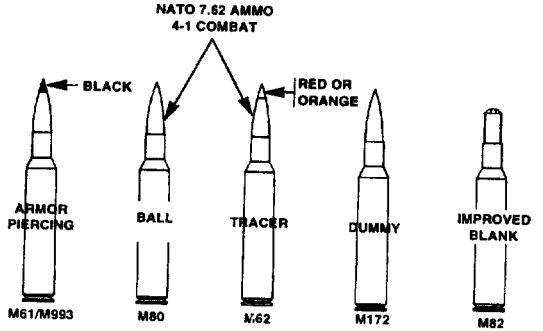
3 For battle sight zero refer to TM 9-1005-313-23&P (M240B/M240G).

CHAPTER 4
AMMUNITION

WARNING

This is the only ammunition authorized for use in your machine gun. If it is not shown, it is not authorized.

Ammunition which fails to fire will be disposed of by authorized procedures.



AMMUNITION - CONT.

1 Protect ammunition from mud, sand, and water. If the ammunition gets wet or dirty, wipe it off at once with a clean, dry rag (item 7, app D). Wipe off light corrosion as soon as it is discovered. Turn in heavily corroded cartridges.

2 Do not expose ammunition to direct rays of the sun. If the powder is hot, excessive pressure may be developed when the weapon is fired.

3 Do not oil or grease ammunition. Dust and other abrasives that collect on greasy ammunition may cause damage to the operating parts of the machine gun. Moreover, oiled cartridges produce excessive chamber pressure.

4 Do not fire dented cartridges, cartridges with loose bullets, or otherwise defective rounds.

APPENDIX A
REFERENCES

SCOPE. This appendix lists all forms, field manuals, and miscellaneous publications referenced in this manual.

FORMS.

DA Form 2404 ..... Equipment Inspection and Maintenance Worksheet
DA Form 2028 ..... Recommended Changes to Publications and Blank Forms
SF 368 ..... Product Quality Deficiency Report

FIELD MANUALS.

FM 3-5 ..... NBC Decontamination
FM 21-11 ..... First Aid for Soldiers

RELATED PUBLICATIONS.

TM 9-4933-273-12&P ..... Operator's and Unit Maintenance Manual (Including RPSTL) Boresighting Equipment, Weapon Small Arms, M30

U.S. MARINE CORPS PUBLICATIONS AND FORMS.

MCO 4855.10 ..... Quality Deficiency Report Manual
NAVMC Form 10772..... Recommended Changes to Technical Publications
TM 4700.15/1..... Equipment Record Procedures

MISCELLANEOUS PUBLICATIONS.

CTA 8-100 ..... Army Medical Department Expendable/Durable Items
CTA 50-970 ..... Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items)
DA PAM 738-750 ..... The Army Maintenance Management System (TAMMS)

APPENDIX B
COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LISTS

Section I. INTRODUCTION

SCOPE. This appendix lists components of the end item and basic issue items for the machine gun to help you inventory items required for safe and effective operation.

GENERAL. The Components of End Item and Basic Issue Items Lists are divided into the following sections:

Section II. Components of End Item. This is for informational purposes only and is not authority to requisition replacements. These items are part of the end item but are removed and separately packaged for transportation or shipment. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts. Illustrations are furnished to assist you in identifying the items.

Section III. Basic Issue Items. These are the minimum essential items required to place the machine gun in operation, to operate it, and to perform emergency repairs.

Although shipped separately packaged, BII must be with the machine gun during operation and whenever it is transferred between property accounts.The illustrations will assist you with hard to identify items. This manual is your authority to request/ requisition replacement BII, based on TOE/MTOE authorization of the end item.

EXPLANATION OF COLUMNS. The following provided an explanation of columns found in the tabular listings:

Column (1) - Illus Number, gives you the number of the item illustrated.

Column (2) - National Stock Number, the stock number of the item to be used for requisitioning purposes.

Column (3) - Description and Usable On Code, identifies the Federal item name (in all capital letters) followed by a minimum description when needed. The last line below the description is the CAGEC (in parenthesis) and the part number. If the item you need is not the same for different models of the equipment, a Usable On Code will appear on the right side of the description column on the same line as the part number. These codes are identified below:

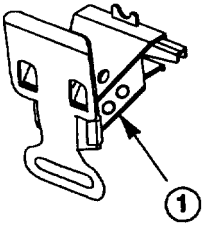
CODE	USED ON	CODE	USED ON
G69	M240	AG8	M240E1
BB2	M240B	BC6	M240G
L04	M240C		

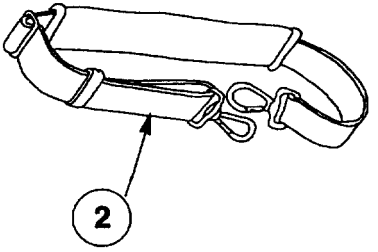
Column (4) - U/M, indicates how the item is issued for the National Stock Number shown in column (2).

Column (5) - Qty Rqr, indicates the quantity required.

Section II. COMPONENTS OF END ITEM

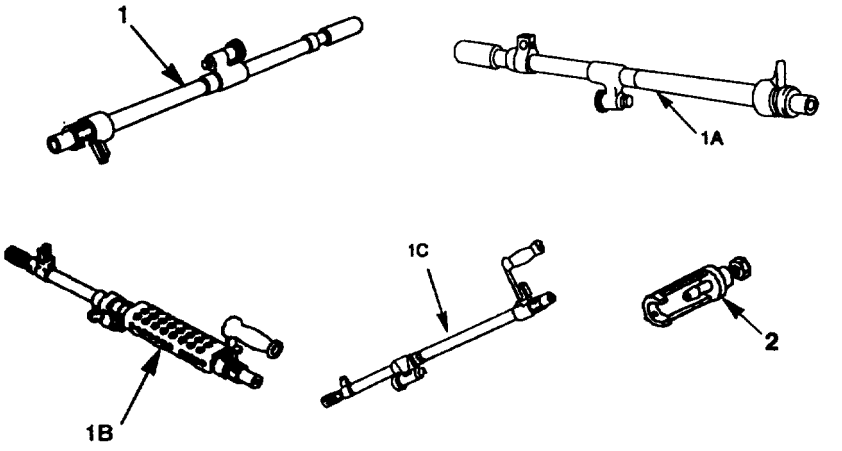
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
1		ADAPTER, AMMUNITION (19200) 12976909	BB2	EA	1
2		SLING, W/HOOK ASSEMBLY (19200) 12976938	BB2	EA	1


1


2

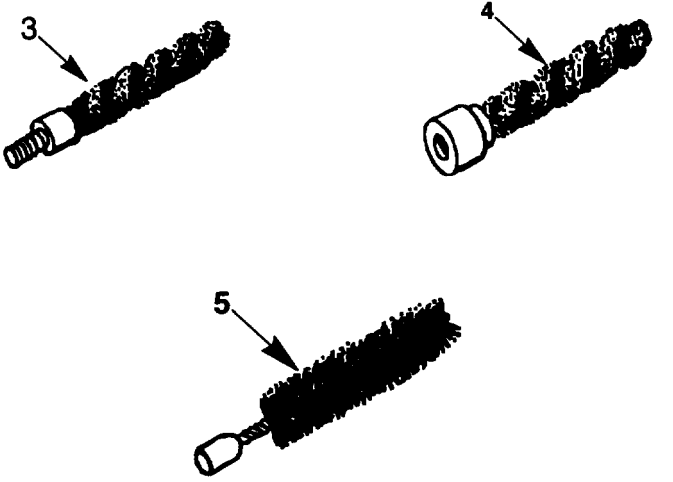
Section III. BASIC ISSUE ITEMS

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
1	1005-01-044-1026	BARREL ASSEMBLY (19200) 11825985	G69, L04	EA	1
1A	1005-01-251-9701	BARREL ASSEMBLY (19200) 12597035	AG8	EA	1
1B		BARREL, ASSEMBLY (19200) 12976817	BB2	EA	1
1C	1005-01-408-5897	BARREL, ASSEMBLY (19200) 12976818	BC6	EA	1
2	1005-01-246-1002	BLANK FIRING ADAPTER (53711) 6086104	BC6	EA	1


1
1A
1B
1C
2

Section III. BASIC ISSUE ITEMS (Cont)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
3	1005-01-033-3925	BRUSH, CLEANING, GAS CYLINDER (19200) 11826118	BC6	EA	1
4	1005-00-556-4174	BRUSH, CLEANING, SMALL ARMS BORE (10001) 5564174	BC6	EA	2
5	1005-00-690-3115	BRUSH, CLEANING, SMALL ARMS CHAMBER (19205) 7790452	BC6	EA	1


3
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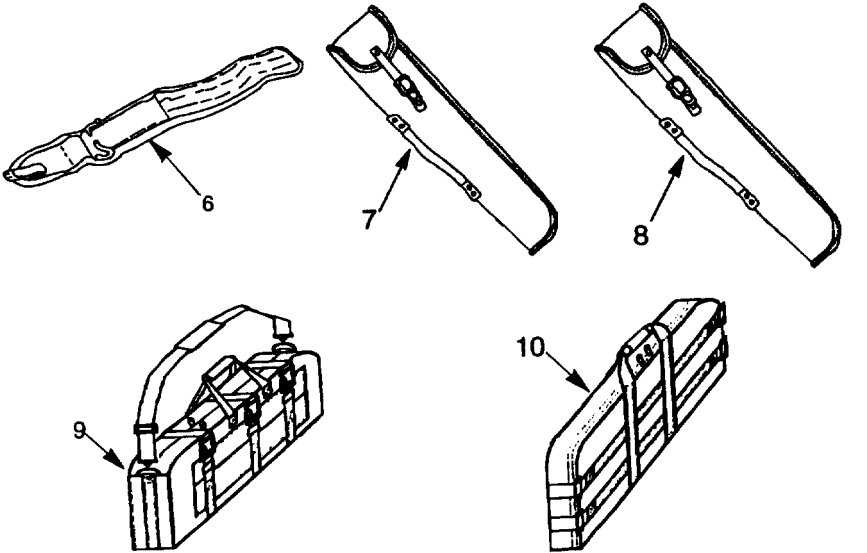
Section III. BASIC ISSUE ITEMS (Cont)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
6	1005-00-550-6573	CASE SMALL ARMS CLEANING ROD (19204) 5506573	G69, L04	EA	1
7	1005-01-038-6025	CASE, SPARE BARREL (19200) 11826275	G69, L04, AG8	EA	1
8		CASE, SPARE BARREL (19200) 12977109	BB2	EA	1
9	1005-01-408-5431	CASE, CARRYING, MACHINE GUN (07609) SK74200	BC6	EA	1
10	8465-01-408-5422	CASE CARRYING, SPARE BARREL (07609) SK74201	BC6	EA	1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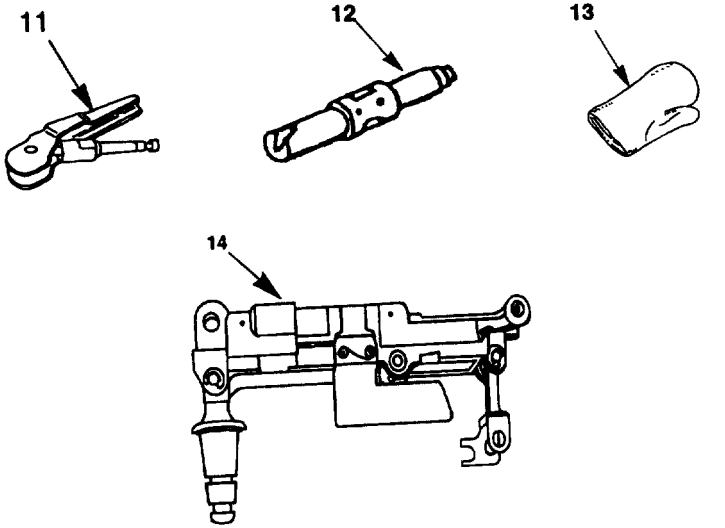
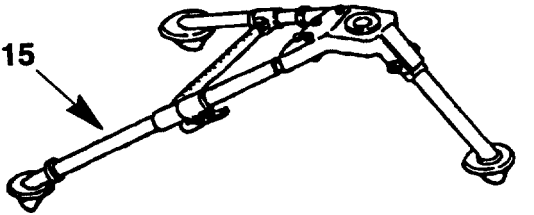
Section III. BASIC ISSUE ITEMS (Cont)

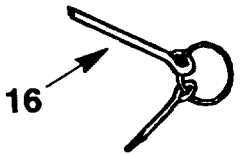
(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
11	4933-01-033-1510	EXTRACTOR, RUPTURED CARTRIDGE CASE (19200) 11826264		EA	1
12	5340-01-265-2683	HANDLE ASSEMBLY, CLEANING ROD (19204) 12900436	BC6	EA	1
13	8415-01-092-0039	MITTEN, HEAT PROTECTIVE M5337 (81349) MIL-M-11199	G69, L04, AG8	EA	1
14	1005-01-408-5909	MOUNT, FLEX, ASSEMBLY (19200) 12976940	BC6	EA	1

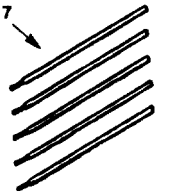

11
12
13
14

Section III. BASIC ISSUE ITEMS (Cont)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
15	1005-00-710-5599	MOUNT, TRIPOD, M122 (19205) 7790723	BC6	EA	1
16	4933-01-047-3394	REAMER, CLEANING (19200) 11826036	BC6	EA	1
17	1005-00-726-6109	ROD, SECTION, CLEANING, SMALL ARMS (19205) 7266109	BC6, G69, L04	EA	5

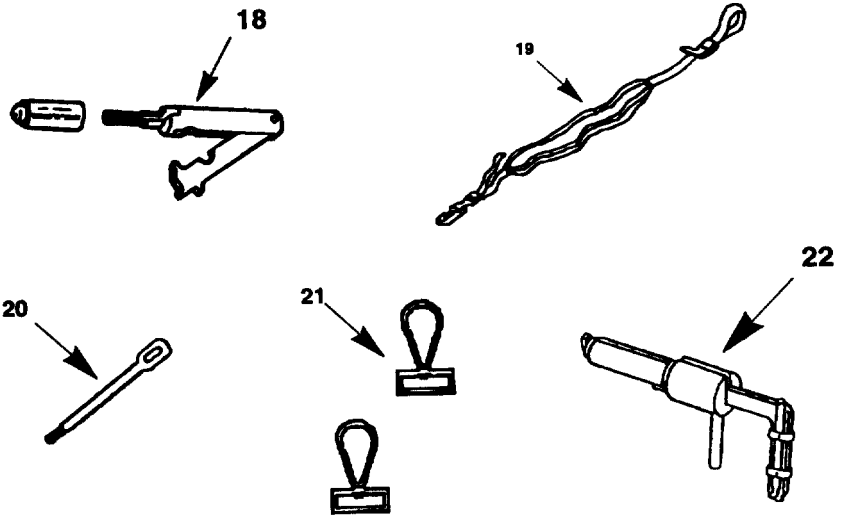

15


16


17

Section III. BASIC ISSUE ITEMS (Cont)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
18	4933-01-033-1504	SCRAPER, COMBINATION REGULATOR (19200) 11826005	BC6	EA	1
19	1005-00-312-7177	SLING ASSEMBLY (W/O HOOKS) (19204) 12002983	BC6	EA	1
20	1005-00-726-6110	SWAB HOLDER SECTION (19204) 7266110	BC6, L04, G69	EA	1
21	1005-01-411-9003	SWIVEL HOOK, SLING, CARRYING (3S679) 3602004460	BC6	EA	2
22	4933-01-033-1503	TOOL, COMBINATION, SCRAPER & EXTRACTOR (19200) 11826059	BC6	EA	1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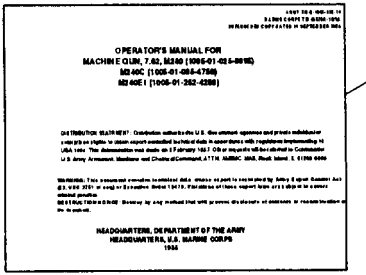
Section III. BASIC ISSUE ITEMS (Cont)

(1) ILLUS NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION CAGEC AND PART NUMBER	USABLE ON CODE	(4) U/M	(5) QTY RQR
23	1005-00-603-4834	T&E MECHANISM, M122 (19205) 7791119	BC6	EA	1
24		TM 9-1005-313-10/ TM 08670A-10/1A		EA	1

23



OPERATOR'S MANUAL FOR
MACHINE GUN, 7.62, M240 (1005-01-025-8915)
M240C (1005-01-084-4788)
M240E1 (1005-01-252-4288)

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HEADQUARTERS, U.S. MARINE CORPS
1998

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APPENDIX C
ADDITIONAL AUTHORIZATION LIST

Section I. INTRODUCTION

SCOPE. This appendix lists additional items you are authorized for the support of the machine gun.

GENERAL. This list identifies items that do not have to accompany the machine gun and that do not have to be turned in with it. These items are all authorized to you by CTA, MOTE, TDA, or JTA.

EXPLANATION OF LISTING. National stock numbers, descriptions, and quantities are provided to help you identify and request the additional items you require to support the equipment. The items are listed in alphabetical sequence by item name under the type document (i.e., CTA, MOTE, TDA, or JTA) which authorizes the item(s) to you.

Section II. ADDITIONAL AUTHORIZATION LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION CAGEC & PART NUMBER	USABLE ON CODE	(3) U/M	(4) QTY AUTH
	CTA AUTHORIZED ITEMS			
1005-01-148-7437	BLANK FIRING ATTACHMENT, M21 (19200) 11833471	G69, LO4	EA	1
	BLANK FIRING ATTACHMENT, M24 (19200) 12976950	BB2	EA	1
1005-01-033-3925	BRUSH, CLEANING, GAS CYLINDER (19200) 11826118		EA	1
1005-00-556-4174	BRUSH, CLEANING, SMALL ARMS BORE (10001) 5564174		EA	2

Section II. ADDITIONAL AUTHORIZATION LIST (cont)

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION CAGEC & PART NUMBER	USABLE ON CODE	(3) U/M	(4) QTY AUTH
1005-00-690-3115	BRUSH, CLEANING, SMALL ARMS CHAMBER (19205) 7790452		EA	1
1005-00-350-4100	BRUSH, CLEANING, SMALL ARMS RECEIVER (19204) 8448466		EA	1
1005-00-550-6573	CASE, SMALL ARMS CLEANING ROD (19204) 5506573		EA	1
1005-00-793-6761	HANDLE ASSEMBLY, CLEANING ROD ((19204) 7266115		EA	1

Section II. ADDITIONAL AUTHORIZATION LIST (Cont)

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION CAGEC & PART NUMBER	USABLE ON CODE	(3) U/M	(4) QTY AUTH
8415-01-092-0039	MITTEN, HEAT PROTECTIVE M5337 (81349) MIL-M-11199	BB2	EA	1
4933-01-047-3394	REAMER, CLEANING (19200) 11826036		EA	1
1005-00-726-6109	ROD SECTION, CLEANING, SMALL ARMS (19205) 7266109		EA	5
4933-01-033-1504	SCRAPER, COMBINATION REGULATOR (19200) 11826005		EA	1
1005-00-726-6110	SWAB HOLDER SECTION, SMALL ARMS CLEANING ROD (19204) 7266110		EA	1

Section II. ADDITIONAL AUTHORIZATION LIST (Cont)

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION CAGEC & PART NUMBER	USABLE ON CODE	(3) U/M	(4) QTY AUTH
4933-01-033-1503	TOOL, COMBINATION SCRAPER AND EXTRACTOR (19200) 11826059		EA	1

Section III. ASSOCIATED EQUIPMENT LIST

(1) NATIONAL STOCK NUMBER	(2) DESCRIPTION CAGEC & PART NUMBER	USABLE ON CODE	(3) U/M	(4) QTY AUTH
	CTA AUTHORIZED			
	MOUNT, M122A1 (19200) 12976949	BB2	EA	1

APPENDIX D
EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

Section I. INTRODUCTION

SCOPE. This appendix lists expendable/durable supplies and materials you will need to operate and maintain the machine gun. This is for informational purposes only and is not authority to requisition the listed items. These items are authorized to you by CTA 50-970, Expendable/Durable Items (Except Medical, Class V, Repair Parts, and Heraldic Items), or CTA 8-100, Army Medical Department Expendable/Durable Items.

EXPLANATION OF COLUMNS.

Column (1) - Item Number. This number is assigned to the entry in the listing and is referenced in the narrative instructions to identify the material (e.g., "Use cleaner, lubricant and preservative (item 1, app D)").

Column (2) - Level. This column identifies the lowest level of maintenance that requires the listed item.

C - Operator/Crew

Column (3) - National Stock Number. This is the National stock number assigned to the item; use it to request or requisition the item.

Column (4) - Description. Indicates the Federal item name and, if required, a description to identify the item. The last line for each item indicates the Contractor and Government Entity Code (CAGEC) in parentheses followed by the part number.

Column (5) - Unit of Measure (U/M). Indicates the measure used in performing the actual maintenance function. This measure is express by a two-character alphabetical abbreviation (e.g. , ea, in., pr). If the unit of measure differs from the unit of issue, requisition the lowest unit of issue that will satisfy your requirements.

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
1	C		CLEANER, LUBRICANT AND PRESERVATIVE grade 2 (CLP) (81349) MIL-L-63460	
		9150-01-102-1473	1/2 oz bottle	EA
		9150-01-079-6124	4 oz bottle	EA
2	C		CLEANER, TOBACCO, PIPE (92849)	
		9920-00-292-9946	1 pkg (32 per pkg) (Marine Corp only)	EA
3	C		CLEANING COMPOUND, SOLVENT: rifle bore cleaner (RBC) (81349) MIL-C-372	
		6850-00-224-6656	2 oz can	EA
		6850-00-224-6657	6 oz can	EA

Section II. EXPENDABLE/DURABLE SUPPLIES AND MATERIALS LIST (Cont)

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
4	C		LUBRICATING OIL, WEAPONS, (LAW) (81349) MIL-L-14107	
		9150-00-292-9689	1 qt can	EA
5	C		LUBRICATING OIL, WEAPONS, semi-fluid w/Teflon (LSA-T) (81349) MIL-L-46150	
		9150-00-949-0323	8 oz tube (Marine Corp only)	EA
6	C		LUBRICATING OIL, WEAPONS: semi-fluid (LSA) (19204) 8436793	
		9150-00-889-3522	4 oz bottle	EA

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) U/M
7	C		RAG, WIPING: cotton (58536) A-A-531	
		7920-00-205-1711	50 lb bdl	LB
8	C		SWAB, SMALL ARMS CLEANING: cotton (19204) 5019316	
		1005-00-288-3565	1 pkg (1000 per pkg)	EA
9	C		TARGET, BASIC MACHINE GUN QUALIFICATION/ 10 METER QUALIFICATION TARGET (19204) 8426940	
		6920-00-078-5123	1 box (200 per box) (Marine Corp only)	BX

By Order of the Secretary of the Army and Commandant of the Marine Corps:

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